## Undergraduate Programs

## Minors (Program Descriptions and Requirements)

## African and African American Studies Minor (LAAFRMIN)

Campus: TEMPE

Description: The African and African American Studies Program offers an interdisciplinary examination of the many ways in which African and African-descended peoples have created robust lives for themselves and, in turn, contributed to the creation of the modern world.
The program's mission is advanced by its core undergraduate curriculum and certificate and minor programs that examine the culture, arts, history, politics, economics and current status of African Americans, Africans and the African Diaspora everywhere, especially in the Caribbean, Central America and South America.
The curriculum combines a research-based understanding of the humanities, social and behavioral sciences and the arts with practical applications (internships, community/civic engagement and research projects) to prepare students for lifelong learning, advanced study in a variety of fields and successful careers and productive public service in an increasingly diverse society, especially in Arizona.

Program Requirements: Students will be required to complete 18 credit hours. Six credits will be prescribed core and the remaining 12 elective credit hours will be selected from any of the AAAS prefixes (AFH, AFR, AFS).
Required Core Course: AFS 200 Introduction to African and African Diaspora Studies (3)
Elective Core Course: 3 credits
AFH 300: Precolonial Africa (3)
AFH 305: Global History of the Trans-Atlantic Slave Trade (3)
AFS 301: Race and Racism in Africa/African Diaspora (3)
AFS 302: History of Black Women (3)
Elective Courses: The remaining 12 hours will be completed by selecting courses not taken to fulfill the six required hours and will be selected from any of the unit prefixes (AFH, AFR, AFS).
At least 12 of the 18 credit hours must be upper division courses ( 300 or higher). All courses must have a " C " (2.00) grade or higher. No course may be used to satisfy more than one requirement in the minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2 ) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://aaas.clas.asu.edu
WILSN 140
aframstu@asu.edu
480-965-4399

## American Indian Studies Minor (LAAISMIN)

Campus: TEMPE

Description: The minor in American Indian studies is designed for students interested in developing an understanding of American Indian issues and analyzing issues through critical inquiry.

Program Requirements: Eighteen credit hours are required, including AIS 180, 285, 380 and three additional upper division courses. No pass/fail or credit/noncredit course work may be applied to the minor. A minimum of nine hours must be in-resident credit at the Tempe campus. Students must receive a minimum grade of "C" (2.00 on a scale of 4.00) for all courses in the minor and meet all course eligibility requirements.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
American Indian Studies Program
http://americanindian.clas.asu.edu/
DHALL 356
AIS@asu.edu
480-727-7056

## American Studies Minor (ASAMSMIN)

## Campus: WEST

Description: The American studies minor offers students the opportunity to pursue an interest in the interdisciplinary study of American culture. This interdisciplinary minor is particularly appropriate for students majoring in one of the humanities or social sciences disciplines.

Program Requirements: The American studies minor consists of 18 credit hours, 12 of which must be upper-division (300-400 level). The following courses are required (6):
AMS 301 Introduction to American Studies, L (3)
AMS 330 Introduction to American Lives, HU (3)
Choose from the following combinations (6):
AMS 310 History of American Systems to 1865, L, C, H (3)
AMS 311 History of American Systems since 1865, H (3)
or
AMS 320 American Cultural History I, SB, H (3)
AMS 321 American Cultural History II, SB, H (3)
Supporting Courses (6):
Two courses with substantial American content that must be approved by the American Studies advisor.
Enrollment Requirements: Students wishing to pursue the American studies minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken. The student should also consult with an academic advisor in the college, division or department of his or her major to ensure they recognize the minor, and to have the minor added to the program of study.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of

Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/americanstudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Anthropology Minor (LAASBMIN)

## Campus: TEMPE

Description: The minor in anthropology provides students with a great deal of flexibility in selecting courses. The program has been designed to allow students to focus on areas within the discipline that articulate well with their major. All students interested in the anthropology minor are encouraged to discuss the options available with a School of Human Evolution and Social Change undergraduate advisor.

Program Requirements: The anthropology minor requires a minimum of 18 credit hours.
Two of the introductory courses from ASB 102, ASM 104 and ASB 222 (or 223 ) are required. However, the particular introductory courses selected may limit the anthropology courses available in the upper division.
Twelve credit hours must be upper-division and represent at least two of the three subfields of anthropology.
The three subfields are:

- Archaeology.
- Physical anthropology.
- Sociocultural anthropology (with linguistics).

The courses chosen to represent two of the three subfields must be drawn from the distribution requirements of those two subfields.
A minimum grade of " $C$ " (2.00 on a scale of 4.00 ) is required for all courses taken for the minor in anthropology.
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of School of Human Evolution \& Social Change
http://shesc.asu.edu/degree-ug
SHESC 233
shesc.undergrad@asu.edu
480-965-6215

## Applied Biological Sciences Minor (TSABSMIN)

Campus: POLY
Description: Applied Biological Sciences offers rigorous and practical programs in applications of the biological sciences. Consistent with a polytechnic vision, this minor involves extensive student interaction with faculty through experience-based learning activities, including:

- Faculty-guided research and service-learning projects.
- Field trips.
- Internships.
- Laboratories.

Mastery of fundamental biological principles is emphasized through quality learning in the classroom and hands-on activities in laboratories and in the living laboratories of the Sonoran desert and surrounding ecosystems (as well as the landscape of the greater Phoenix area).

Program Requirements: The applied biological sciences minor consists of 23 credit hours, including BIO 181 General Biology I and BIO 182 General Biology II, and at least 15 hours selected with the approval of an advisor; at least 9 hours must be in upper-division courses offered by the Applied Biological Sciences program.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.

## Contact Information:

Technology and Innovation, College of
Department of Applied Sciences and Mathematics
http://technology.asu.edu/dasm
SANTN 330
technology@asu.edu
480-727-1874

## Applied Psychology Minor (ECPSYMIN)

## Campus: DTPHX

Description: Applied psychology offers a traditional psychology core curriculum with emphasis on human factors, human-computer interaction, aviation or manufacturing.

Program Requirements: This minor in applied psychology consists of 22 credit hours with at least 12 being upper-division courses. The following are required courses that must be completed with a grade of " $C$ " $(2.00)$ or higher:
PGS 101 Introduction to Psychology, SB (3)
PSY 230 Introduction to Statistics, CS (3)
PSY 290 Research Methods, L/SG (4)
PSY 437 Human Factors, L (3) or PSY 438 Human-Computer Interaction* (3) or PSY 440 Industrial/Organizational Psychology* (3)
Additional hours of upper-division PSY and/or PGS courses (9).
A maximum of three credit hours from the following courses can be used toward the minor requirements:
PGS 399 Supervised Research (3)
PGS 499 Individualized Instruction (3) or PSY 499 Individualized Instruction (3)
PSY 492 Honors Directed Study (3)
A minimum of three classes (two of which are in the upper division) must be taken in residence at ASU.
*This PSY course is offered only at the Polytechnic campus. Additional PSY and PGS courses are offered at the Polytechnic, Tempe, Downtown Phoenix and West campuses.

Enrollment Requirements: Please contact the department for more information.

## Contact Information:

Technology and Innovation, College of
Faculty of Applied Psychology
http://technology.asu.edu/appliedpsych
SANTN 330
technology@asu.edu
480-727-1874

## Arabic Studies Minor (LAARBMIN)

Campus: TEMPE

Description: The minor in Arabic studies provides students with instruction in Modern Standard Arabic (MSA), as well as Arabic culture and literature. Students who successfully complete the prescribed course work of the Arabic minor are expected to be able to communicate effectively in Arabic and interact with native speakers of Arabic in MSA. Students will be able to communicate in Arabic in the other two areas of language acquisition: reading and writing through reading authentic material in Arabic, and writing paragraphs in MSA. Literature courses expand students' knowledge in Arabic, Middle East, and Islamic culture and civilization. Students of all academic disciplines doing research on, or seeking employment in, areas related to the Middle East or parts of the Arab world will find the minor in Arabic highly beneficial. Students should work with their undergraduate advisor as well as Arabic advisors in declaring the minor in Arabic studies by their junior year.

Program Requirements: The minor in Arabic studies requires 26 credit hours of courses detailed below. A minimum grade of " C " (2.00) or better is required in each course.

ARB 201 and ARB 202 Intermediate Arabic I and II (8)
ARB 311 Advanced Arabic Skills I (3)
ARB 411 Advanced Arabic Skills II (3)
ARB 351 Classical Arabic Literature (3)
ARB 331 Arabic Islamic Culture and Literature (3)
ARB 341 Quran Text and Women (3)
Any upper-division course of the following (3):
ARB 321 Arabic Conversation I
ARB 335 Arabic Culture and Islam
ARB 421 Arabic Conversation II
HST 372 Modern Middle East
REL 365 Islamic Civilization
REL 366 Islam in the Modern World
Students must complete the sequence of elementary Arabic, ARB 101 and ARB 102, as prerequisite courses.
Enrollment Requirements: Students wishing to pursue the Arabic studies minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken. The student should also consult with an academic advisor in the college, division or department of his or her major to make sure they recognize the minor, and to have the minor added to the program of study.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/
LL 440
silc@asu.edu
480-965-6281

## Architectural Studies Minor (ARSTDMIN)

Campus: TEMPE
Description: The architectural studies minor is available to non-architecture majors interested in this field who wish to pursue another major. The courses are designed to provide an overview of architecture throughout history while focusing on architectural design, with the intention to explore the process of design thinking.

Program Requirements: A minimum of 18 credit hours (to include 12 credit hours of upper-division course work) are required for the minor.
Required Courses:
ALA 100 Introduction to Environmental Design, HU, G, H (3)
ALA 102 Architecture, Landscape Architecture, and Society HU, G (3)

APH 313 History of Architecture I, L/HU, G, H (3)
APH 314 History of Architecture II, L/HU, G, H (3)
Six additional upper-division credit hours of electives in the architectural history and theory concentration must be selected from the following list:
ANP 494 Special Topics (1-3)
APH 305 Contemporary Architecture (3)
APH 394 Special Topics (3)
APH 346 20th-Century Architecture I, HU (3)
APH 347 20th-Century Architecture II, HU (3)
APH 414 History of the City, H (3)
APH 441 Ancient Architecture (3)
APH 444 Baroque Architecture (3)
APH 494 Culture of Place, C (3)
APH 494 Special Topics (6)
APH 499 Individualized Instruction* (3)
APH 511 Energy Environmental Theory (3)
APH 598 Special Topics (3)
ARP 451 Architectural Field Studies (6)
ATE 598 Special Topics (3)

* This course requires a petition to the School of Architecture and Landscape Architecture.

A minimum GPA of 2.50 in minor courses is required to earn the minor in architectural studies. In addition, students may not use a core course to count toward the minor. Students pursuing the B.S. in landscape architecture must petition the school to request a substitution for any core courses that are also included in the architectural studies minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/sala.php
CDN 162
herbergeradvising@asu.edu
480-965-3536

## Art History Minor (FAARTHMIN)

Campus: TEMPE

Description: The art history minor is designed for those students who are interested in a broad introduction to the study of the history of art. In giving a broad chronological exposure to the history of art from diverse cultures, the minor strengthens academic preparation and provides students with many options to select courses based on their individual interests.

Program Requirements: The School of Art offers a minor in art history consisting of 18 credit hours of course work, including 12 upper-division electives. A minimum grade of "C" 2.00 ) is required in all classes in the minor. For those pursuing a minor, a minimum overall GPA of " $C$ " $(2.00)$ is required. Courses may not be double counted in a major and the minor, and a minimum of 12 credit hours of resident credit at the Tempe campus are required.
ARS 100 or 300 may be used toward a minor. ARS 100 and 300 may not be used toward an art history minor if the student is an art major or has credit in ARS 101 and 102.
Required Courses

Select two of the following courses:

ARS 101 Art from Prehistory Through Middle Ages, HU, H (3)
ARS 102 Art from Renaissance to Present, HU, H (3)
or
ARS 201 Art of Asia, HU, G, H (3)
ARS 202 Art of Africa, Oceania and the Americas, HU, G, H (3)

## Elective Courses

Students pursuing an art history minor select four three-credit-hour, upper-division courses. A seminar is strongly recommended for those considering graduate study.
Students need to be aware of lower-division prerequisites for all upper-division courses. Interested students should contact the School of Art for specific requirements and admission procedures.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the department for more information.
Note: certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102
herbergeradvising@asu.edu
480-965-3468

## Asian Languages (Chinese) Minor (LACHIMIN)

Campus: TEMPE
Description: Students pursuing a minor in Asian languages (Chinese) gain an understanding of the language, literature and cultures of China. There are opportunities to partake in study abroad programs, which can serve to enhance a student's minor experience and education.

Program Requirements: The minor in Asian languages (Chinese) consists of 18 credit hours, of which 12 credit hours must be at the upper division. Required courses are:

- Up to six credit hours of 200-level Chinese.
- CHI 301 Third-Year Chinese I (5).
- CHI 302 Third-Year Chinese II (5).
- Two credit hours of CHI course work chosen in consultation with the advisor in the School of International Letters and Cultures.

Course substitutions are allowed for heritage and advanced speakers of the language.
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.

A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Asian Languages (Japanese) Minor (LAJPNMIN)

## Campus: TEMPE

Description: Students pursuing a minor in Asian languages (Japanese) gain an understanding of the language, literature, and cultures of Japan. There are opportunities to partake in study abroad programs, which can serve to enhance a student's minor experience and education.

Program Requirements: The minor in Asian languages (Japanese) consists of 18 credit hours, of which 12 credit hours must be at the upper division. Required courses are:

- JPN 301 Third-Year Japanese I, G (3).
- JPN 302 Third-Year Japanese II, G (3).
- Six credit hours of additional upper-division JPN courses chosen in consultation with a School of International Letters and Cultures advisor.
- Up to six credit hours in 200-level JPN courses.

Course substitutions are allowed for heritage and advanced speakers of the language.
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2 ) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Asian Pacific American Studies Minor (LAAPAMIN)

Campus: TEMPE

Description: The Asian Pacific American Studies (APAS) minor is an interdisciplinary undergraduate program option that will allow students interested in complementing a degree with the study of demographic, cultural, social, economic and policy issues that have
shaped and continue to affect Asian American and Pacific Islander (AAPI) communities in Arizona, the Southwest U.S., nationally and internationally. This minor will target students interested in careers serving and relating to the complex and rapidly changing AAPI population and more broadly with culturally diverse populations.
For example, an APAS minor could be paired with majors involving business, law, immigration, community organizing, journalism, health or creative arts. Students interested in issues of diversity, multicultural relations, race, gender, class, and global and local engagement with diverse, migrant and diasporic populations and peoples will benefit from earning the APAS minor. In addition, one option for students enrolled in the minor is to enroll in a community-based internship; this provides a chance to learn more about local Asian Pacific American organizations and communities and to apply what they have learned in course work to specific community contexts.

Program Requirements: Students will be required to complete 18 credit hours for the minor. Six hours will be a prescribed core and the remaining 12 elective hours will be selected from any of the courses with an APAS prefix.
Required Core Course (6)

APA 200 Introduction to Asian Pacific American Studies
APA 360 Asian Pacific American Experience

Elective Courses (12)
The remaining 12 credit hours will be completed by selecting courses not taken to fulfill the 6 required hours and will be selected from any APAS courses.

APA 210 Introduction to Ethnic Studies in the U.S.
APA 310 Asian Pacific American Arts and Cultures
APA 315 Asian Pacific American Literature
APA 330 Asian Pacific American Genders and Sexualities
APA 340 Asian Pacific Americans and Media
APA 345 Asian Pacific Americans and Film
APA 360 Asian Pacific American Experience
Note: one APA 360 course is required for the core; other sections may be repeated for credit with different topics.

- The Chinese American experience.
- The Japanese American experience.
- The Filipina/o American experience.
- The Korean American experience.
- The Pacific Islander experience.
- The South Asian experience.
- The Southeast Asian experience.
- The Multi-Racial experience.
- Asian American psychology.

APA 394 Special Topics (may be repeated for credit with a different topic)
APA 450 Asian Pacific American Contemporary Issues
APA 484 Asian Pacific American Community Internship
APA 494 Special Topics (may be repeated for credit with a different topic)
APA 499 Individualized Instruction (1-3 credits, may be repeated for credit)

## Other Requirements and Restrictions

- At least 12 of the 18 credit hours must be upper division courses ( 300 or higher).
- All courses for the minor must have a " $C$ " (2.00) grade or higher.
- A minimum of 9 credit hours must be taken in residency at ASU.
- No course may be used to satisfy more than one requirement in the minor.


## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://apas.clas.asu.edu
WILSN 342

## Astronomy Minor (LAASTMIN)

Campus: TEMPE

Description: The astronomy minor is designed for students interested in developing a basic understanding of astronomy and astrophysics and analyzing issues through a scientific viewpoint.

Program Requirements: The minor in astronomy consists of a minimum of 24 credit hours. At least 12 credit hours must in upperdivision courses. Required courses:
AST 113 Astronomy Laboratory I, SQ (1)*
AST 114 Astronomy Laboratory II, SQ (1)**
AST 321 Introduction to Planetary and Stellar Astrophysics, SQ (3)*
AST 322 Introduction to Galactic and Extragalactic Astrophysics, SQ (3)**
Choose between the course combinations below:
PHY 150 Physics I, SQ (4) or
PHY 121 University Physics I: Mechanics, SQ (3)*** and PHY 122 University Physics Laboratory I SQ (1)***
and
PHY 151 Physics II, SQ (4) or
PHY 131 University Physics II: Electricity and Magnetism, SQ (3)**** and PHY 132 University Physics Laboratory II SQ (1)**** or

PHY 252 Physics III, SQ (4)
Eight credit hours of electives are chosen with approval of an astronomy advisor from upper division courses in physics and astronomy.
*Both AST 113 and 321 must be taken to secure SQ credit.
**Both AST 114 and 322 must be taken to secure SQ credit.
***Both PHY 121 and 122 must be taken to secure SQ credit.
****Both PHY 131 and 132 must be taken to secure SQ credit.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 2) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
All students will be required to meet with an academic advisor in the School of Earth and Space Exploration (SESE) to declare the minor and confirm that the requirements are being met. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows recognition of the minor. The DARS system will be used for tracking student progress and verifying completion of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which courses in the minor are simultaneously being used to fulfill core requirements of the student's major.

## Contact Information:

Liberal Arts and Sciences, College of School of Earth and Space Exploration
http://sese.asu.edu
PS F686
seseinfo@asu.edu
480-965-5081

## Astrophysics Minor (LAASTPHMIN)

## Campus: TEMPE

Description: The astrophysics minor is designed for students interested in developing a background in the theoretical modeling and observational techniques of galactic and stellar astronomy, extragalactic astronomy and cosmology. Students completing the minor will acquire the ability to think critically about scientific problems, to reduce complex problems to their most important attributes,
and to design experiments, observations and/or theoretical models to address those attributes. Students pursuing an astrophysics minor are expected to have a strong background in physics and mathematics.

Program Requirements: The minor in astrophysics consists of a minimum of 20 credit hours.
The following courses are required for the minor, adding up to 12 credit hours.
AST 321 Intro to Planetary and Stellar Astrophysics (3)
AST 322 Intro to Galactic and Extragalactic Astrophysics (3)
AST 421 Astrophysics I (3)
AST 422 Astrophysics II (3)
Students must also choose one of the following options for the additional 8 credit hours
Option 1:
SES 101 Earth / Solar System / Universe I (3)
SES 102 Earth / Solar System / Universe Lab I (1)
SES 103 Earth / Solar System / Universe II (3)
SES 104 Earth / Solar System / Universe Lab II (1)
Option 2:
AST 111 Intro Solar System Astronomy (3)
AST 113 Astronomy Laboratory I (1)
AST 112 Intro Stars Galaxies \& Cosmology (3)
AST 114 Astronomy Laboratory II (1)

Option 3:
At least 8 credit hours of SES or AST upper division electives; these may include (but are not limited to):
AST 494 Astrophysics Seminar (1)
SES 311 Essentials of Astrobiology (3)
AST/SES 494/598 Astronomical Instrumentation and Data Analysis (3)
Enrollment Requirements: All students will be required to meet with an academic advisor in the School of Earth and Space Exploration (SESE) to declare the minor and confirm that the requirements are being met. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. The DARS system will be used for tracking student progress and verifying completion of the minor. Minimum Residency Requirement
Students must take at least 12 of the 20 units required for the minor at ASU. Transfer coursework must be evaluated by a SESE advisor before it can be applied toward the minor requirements.
The college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met. The college (and, in certain colleges, the department) of the student's major allows recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which courses in the minor are being used to fulfill CORE requirements of the student's major.

## Contact Information:

Liberal Arts and Sciences, College of School of Earth and Space Exploration
http://sese.asu.edu
PSF 686
seseinfo@asu.edu
480-965-5081

## Biochemistry Minor (LABCHMIN)

Campus: TEMPE
Description: The biochemistry minor is designed to give students majoring in other disciplines a solid grounding in the basics of biochemistry in order to complement their major degree. It is especially appropriate for majors in the various disciplines of life sciences, physics, engineering and geology, and for students planning careers in medical disciplines.

Program Requirements: A minor in biochemistry is awarded to students who complete at least 25 credit hours in the following required courses:
BCH 461 General Biochemistry (3)
BCH 462 General Biochemistry (3)
CHM 113 General Chemistry I, SQ (4)
CHM 116 General Chemistry II, SQ (4)
CHM 233 General Organic Chemistry I (3)
CHM 234 General Organic Chemistry II (3)
CHM 237 General Organic Chemistry Laboratory I (1)
CHM 238 General Organic Chemistry Laboratory II (1)
CHM 341 Elementary Physical Chemistry (3) or CHM 345 Physical Chemistry I (3)
A minimum grade of " $C$ " ( 2.00 on a scale of 4.00 ) is required for each of the courses. A minimum of 12 upper division credit hours are required to complete this minor, so the student may need to complete an additional three hours $\mathrm{BCH} / \mathrm{CHM}$ elective.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2 ) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.
Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PS D102
chmugadv@asu.edu
480-965-3461

## Biological Sciences Minor (LABIOMIN)

Campus: TEMPE
Description: Biological sciences encompasses the study of all living things and includes the study of basic organization and function, how organisms evolve, their roles in the natural environment, how hereditary information is transferred and the development of biotechnology. The Biological Sciences Minor is designed to provide students interested in the biological sciences with a flexible curriculum that can be tailored to their interests.

Program Requirements: The minor consists of 24 credit hours which can be taken in one of two options.
Option 1 consists of BIO 181 General Biology I or PLB 200/201 Biology of Plants/Lab, BIO 182 General Biology II, BIO 340 General Genetics, and BIO 345 Organic Evolution.
Option 2 consists of MBB 245 Principles of Molecular and Cellular Biology I, MBB 247 Principles of Molecular and Cellular Biology II, MIC 220 Biology of Microorganisms and MIC 206 Microbiology Lab, and BIO 340 General Genetics.
The remaining hours are selected by the student with the approval of a School of Life Sciences advisor.
Notes:

- At least 12 hours must be upper division courses in the life sciences.
- Courses which are not available for credit in the Life Sciences majors cannot be used for the minor (e.g. BIO 100 The Living World, BIO 201 Human Anatomy and Physiology I, and BIO 202 Human Anatomy and Physiology II).
- Internship courses are not accepted as fulfilling the 24 credit hour requirement.
- This minor is not available to students majoring in the life sciences.

Enrollment Requirements: This minor is not available to students majoring in the life sciences. Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2 ) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSC 206
sols.advising@asu.edu
480-727-6277

## Business Minor (BABUSMIN)

Campus: TEMPE

Description: A minor in business is available to students across the university interested in business courses, but who wish to pursue majors in other colleges. The business minor includes a strong business foundation covering topics that are important to managers such as:

- Accounting.
- Computer information systems.
- Economics.
- Finance.
- Management.
- Marketing.

Program Requirements: Students must complete 36 credit hours of the specified business courses with a grade of " $C$ " (2.00) or higher in each course. Six of the 12 upper-division credit hours must be resident credit. The upper-division courses specified for the minor will be restricted to students with 56 earned credit hours, a minimum 2.50 ASU cumulative GPA and course prerequisite requirements met. Business students are not eligible to apply for the minor.
Lower-Division Courses (24)
ACC 231 Uses of Accounting Information I or ACC 303 Honors Financial Accounting
ACC 241 Uses of Accounting Information II
CIS 105 Computer Applications and Information Technology or other approved computer science/information course
ECN 211 Macroeconomic Principles
ECN 212 Microeconomic Principles
ECN 221 Business Statistics (or other approved statistics course)
MAT 210 Brief Calculus or MAT 270 Calculus with Analytical Geometry I
MAT 211 Mathematics for Business Analysis or MAT 271 Calculus with Analytical Geometry II

Upper-Division Courses (12 credit hours, six of which must be taken from the W. P. Carey School of Business)
FIN 300 Fundamentals of Finance or FIN 302 Managerial Finance or FIN 303 Honors Finance
MGT 300 Organization and Management Leadership or MGT 303 Honors Organizational
Strategies, Leadership and Behavior
MKT 300 Marketing and Business Performance or MKT 302 Applied Marketing Management and Leadership or MKT 303 Honors Marketing Theory and Practice
SCM 300 Global Supply Operations or SCM 303 Honors Global Supply Chain Operations
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or
department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Business, W. P. Carey School of
Dean, W.P. Carey School of Business
http://wpcarey.asu.edu/undergraduate/current-students/academics/current-catalogs.cfm
BA 109
wpcareyug@asu.edu
480-965-4227

## Chemistry Minor (ASCHMMIN)

## Campus: WEST

Description: The minor in chemistry gives students expanded proficiency in the area of chemistry. Many of the growing career fields, such as forensics, medicine and environmental quality, are requiring a greater degree of chemistry than in the past. Therefore, students with a greater chemistry background will have a competitive advantage in these fields. The chemistry minor gives students more experience in the advanced and integrative fields of chemistry through additional biochemistry and analytical chemistry courses. The awarding of the chemistry minor highlights the students expanded chemistry knowledge to future schools and employers.

Program Requirements: The minor in chemistry consists of a minimum of 25 credit hours, of which nine credit hours must be taken in the life sciences department.
Required Courses ( 25 credit hours)
CHM 113 General Chemistry I
CHM 116 General Chemistry II
CHM 233 Organic Chemistry I
CHM 233 Organic Chemistry II
CHM 237 Organic Chemistry Laboratory I
CHM 237 Organic Chemistry Laboratory II
CHM 327 Instrumental Analysis
CHM 328 Instrumental Analysis Laboratory
BCH 361 Principles of Biochemistry
LSC 366 Elementary Biochemistry Laboratory
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://www.newcollege.asu.edu/programs/math_sci/

## Chemistry Minor (LACHMMIN)

## Campus: TEMPE

Description: The chemistry minor is designed to give students majoring in other disciplines a solid grounding in the basics of chemistry in order to complement their major degree. It is especially appropriate for majors in the various disciplines of physics, materials science, geology, engineering and life sciences.

Program Requirements: A minor in chemistry is awarded to students who complete a minimum 24 credit hours. The following courses are required:
CHM 113 General Chemistry I, SQ (4)
CHM 116 General Chemistry II, SQ (4)
CHM 325 Analytical Chemistry (3)
CHM 326 Analytical Chemistry Laboratory (1)
Choose between the course combinations (8 credit hours):
BCH 361 Principles of Biochemistry (3)
BCH 367 Elementary Biochemistry Laboratory (1)
CHM 231 Elementary Organic Chemistry, SQ (3)
CHM 235 Elementary Organic Chemistry Laboratory, SQ (1)
or
CHM 233 General Organic Chemistry I (3)
CHM 234 General Organic Chemistry II (3)
CHM 237 General Organic Chemistry Laboratory I (1)
CHM 238 General Organic Chemistry Laboratory II (1)
Choose between the course combinations below ( 4 or 8 credit hours):
CHM 341 Elementary Physical Chemistry (3)
CHM 343 Physical Chemistry Laboratory (1)
or
CHM 345 Physical Chemistry I (3)
CHM 346 Physical Chemistry II (3)
CHM 348 Physical Chemistry Laboratory I (1)
CHM 349 Physical Chemistry Laboratory II (1)
A minimum grade of " $C$ " ( 2.00 on a scale of 4.00 ) is required for each of the courses in the minor. A minimum of 12 upper division credit hours are required to complete this minor. Therefore, students who choose some options above must complete additional upper division CHM electives.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information: http://chemistry.asu.edu/undergrad/programIntro.asp.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PS D102
chmugadv@asu.edu

## Communication Minor (HSCMNMIN)

## Campus: WEST

Description: The communication minor offers students the opportunity to understand the role and function of communication in cultural, public, organizational and relational contexts. The program offers a flexible set of courses and is designed for students majoring in another field. A maximum of six credit hours are allowed from lower-division course work.

Program Requirements: The minor consists of 18 credit hours of communication courses. Students wishing to pursue a minor must meet with a communication advisor to construct a minor that reflects a particular area of specialty and interest. At least 12 credit hours must come from upper-division courses. To graduate with the minor, students must earn a minimum cumulative GPA of 2.00 in communication courses. All courses must be passed with a minimum grade of "C" (2.00).

Enrollment Requirements: The minor in communication is open to all undergraduate majors. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division or visit the website for more information. Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/communication
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Communication Minor (LACOMMIN)

Campus: TEMPE

Description: The minor in communication focuses on teaching students how communication processes create, maintain and transform identities, relationships, workplaces and communities.
Our mission statement is, "through the study and critique of human communication, we generate knowledge, creativity and understanding to facilitate healthy relationships and workplaces, civil and secure communities and constructive intercultural interaction."

Program Requirements: The minor in communication consists of 18 credit hours of courses:
COM 100 Introduction to Human Communication (3)
COM 225 Public Speaking (3) or COM 259 Communication in Business and the Professions (3)
Two of the following courses (6):
COM 310 Relational Communication (3)
COM 312 Communication, Conflict, and Negotiation (3)
COM 316 Gender and Communication (3)
COM 323 Communication Approaches to Popular Culture (3)
Two upper-division-related courses in Global Studies, Asian Pacific American Studies, African and African American Studies, Chicana/Chicano Studies or American Indian Studies (6)

Nine of the 18 credit hours must be Tempe campus resident credits. No pass/fail, $Y$ credit or credit/no-credit courses are allowed. Communication courses required for one's major may not also count for the minor. All prerequisite and GPA requirements must be met. The "C" (2.00) minimum grade requirement must be met for each class.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have
been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information: http://www.asu.edu/clas/communication/undergraduate/programinfo/minor/.

## Contact Information:

Liberal Arts and Sciences, College of
Hugh Downs School of Human Communication
http://humancommunication.clas.asu.edu/
STA 412
communication@asu.edu
480-965-5095

## Computational Mathematical Sciences Minor (LACMSMIN) <br> Campus: TEMPE

Description: The computational mathematical sciences curriculum strives to provide students with a background in computer science and the natural or physical sciences in addition to a core of course work in mathematics.

Program Requirements: The minor in computational mathematical sciences consists of a minimum of 18 credit hours. Required courses are the following, for a total of 18-20 credit hours:
MAT 271 Calculus with Analytic Geometry II MA (4) or MAT 266 Calculus for Engineers II (3)
MAT 272 Calculus with Analytic Geometry III MA (4) or MAT 267 Calculus for Engineers III (3)
MAT 342 Linear Algebra (3) or MAT 343 Applied Linear Algebra (3)
MAT 420 Scientific Computing (3)
MAT 421 Applied Computational Methods CS (3)
MAT 423 Numerical Analysis I CS (3) or MAT 425 Numerical Analysis II CS (3)
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2 ) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the deparment for more information and see http://math.asu.edu/undergraduate/degrees.html.

## Contact Information:

Liberal Arts and Sciences, College of
School of Mathematical and Statistical Sciences
http://math.asu.edu/
PSA 211
math@asu.edu
480-965-7195

## Criminology and Criminal Justice Minor (PPCRJMIN)

Campus: DTPHX

Description: The minor in criminology and criminal justice allows students in other undergraduate programs at ASU to explore issues of crime, law and the criminal justice system. The minor provides students with the tools to analyze complex issues and policies within the criminal justice system, enhancing students' ability to understand the nature of crime and the system response to law breaking. In addition to the three required courses, which provide a solid understanding of the field, each student will be able to select electives to meet his or her specific interests. Criminal justice majors cannot earn a minor in criminal justice.

Program Requirements: Students are required to:

- Be, at minimum, junior standing to take upper division courses.
- Complete CRJ 100 as the prerequisite for all upper division CRJ courses.
- Complete a minimum of eighteen (18) credit hours of graded classroom/online course work (internship or independent study not applicable).
- Complete a minimum of twelve (12) credit hours of CRJ resident credit at ASU.
- Earn a grade of "C" (2.00) or higher for all classes in the minor.
- Meet with a Criminal Justice advisor prior to registration.
- Take a minimum of twelve (12) credit hours of upper division CRJ course work from the approved list.

Required Core Courses (9)
CRJ 100 Introduction to Criminal Justice (3)

Choose one of the following:

CRJ 201Criminal Justice Crime Control Policies and Practice (3)
CRJ 203 Courts and Sentencing (3)
CRJ 204 Juvenile Justice (3)
CRJ 225 Introduction to Criminology (3)
CRJ 230 Introduction to Policing (3)
CRJ 240 Introduction to Corrections (3)
Choose one of the following:
CRJ 305 Gender, Crime \& Criminal Justice (C) (3)
CRJ 306 Race, Ethnicity, Crime and Criminal Justice (C) (3)
CRJ 350 Law and Social Control (SB) (3)
CRJ 410 Procedural Criminal Law (3)
Electives (9)
Choose any three additional upper division CRJ courses. They must be selected from 300-and 400-level courses.

Enrollment Requirements: Please meet with a criminal justice advisor prior to registration.

## Contact Information:

Public Programs, College of
School of Criminology and Criminal Justice
http://ccj.asu.edu/
UCENT 600
sccj@asu.edu
602-496-2369

## Dance Minor (FADANMIN)

Campus: TEMPE
Description: The School of Dance provides a dynamic and culturally diverse learning environment where students develop their creativity as artists, scholars and educators. The interdisciplinary curriculum promotes creative collaboration and a holistic approach to acquiring skills for successful career transitions. Movement practices, performance and creativity define the core of the program, and the rich educational experience is further enhanced by studies in:

- Criticism.
- Dance cultures.
- Dance history.
- Digital media.
- Movement science.
- Music.
- Philosophy.
- Production.
- Somatics.

Program Requirements: The minor in dance consists of 18 semester hours of course work, including twelve upper-division semester hours.
A minimum grade of "C" (2.00) or higher is required in all courses that fulfill the dance minor.
Dance minor requirements:
Choose one from the following courses, for a total of three credit hours:
DCE 100 Introduction to Dance (HU \& G)
DCE 201 Dance, Culture, and Global Context (HU \& G)
Choose one from the following courses, for a total of three credit hours:
DCE 300 Moving Histories (HU)
DCE 301 Meaning in Motion (L or HU)
DCE 350 Teaching Dance in the Classroom
DCE 402 Ethnography of Dance Practices ([L or HU] \& G)
DCE 394/494 Special Topics (See academic advisor for approved Special Topics courses.)
Choose two from the following courses, for a total of four credit hours:
DCE 110 Argentine Tango I
DCE 111 Raqs Sharqi I
DCE 112 Capoeira I
DCE 113 Dances of Africa 1
DCE 114 Dances of India I
DCE 116 T'ai Chi Ch'uan I
DCE 117 Feldenkrais I
DCE 118 Yoga/Pilates
DCE 120 Modern Dance 1
DCE 121 Ballet 1
DCE 122 Jazz I
DCE 123 Hip Hop I
DCE 124 Latin/Swing/Ballroom I
DCE 125 Latin/Salsa I
DCE 126 Country-Western
DCE 194/294 Special Topics (see academic advisor for approved special topics courses)
DCE 210 Argentine Tango II
DCE 211 Raqs Sharqi II
DCE 216 T'ai Chi Ch'uan II
DCE 220 Modern Dance 2
DCE 221 Ballet 2
DCE 222 Jazz II
DCE 223 Hip Hop II
DCE 224 Latin/Swing/Ballroom II
DCE 225 Latin/Salsa II
DCE 324 Latin/Swing/Ballroom III
Choose additional dance electives to complete 18 credit hours overall, including 12 credit hours upper division.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.

A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Dance T
http://dance.asu.edu/
PEBE 107A
herbergeradvising@asu.edu
480-965-5029

## Design Studies Minor (ARDSNMIN)

Campus: TEMPE

Description: Students interested in design can earn a minor in design studies. This minor is a non-studio based program of study in design that focuses on the design disciplines offered in the ASU Herberger Institute:

- Architectural studies.
- Graphic design.
- Industrial design.
- Interior design.
- Landscape architecture.

The courses may also appeal to students who wish to pursue the study of design within the B.I.S.
Program Requirements: Courses selected must satisfy the minimum requirement of 18 credit hours for the minor. Twelve of the credit hours must be in 300 -level or 400 -level course work. To enhance understanding of the subject matter, some of the designated courses are sequential in nature and require certain prerequisites. Consequently, students should carefully note the semester in which these particular courses are offered. All designated courses for the minor in design studies are lecture courses. To pursue the minor in design studies, students must have a minimum cumulative GPA of 2.50.
Designated Courses for the Minor
Architecture and Landscape Architecture:
ALA 100 Introduction to Environmental Design, HU, G, H (3)
ALA 102 Architecture, Landscape Architecture and Society, G (3)
APH 313 History of Architecture I, HU, G, H (3)
APH 314 History of Architecture II, HU, G, H (3)
APH 421 First Concepts (3)
APH 494 Culture of Place (3)
APH 598 South American Architecture (3)
LPH 310 History of Landscape Architecture (3)
LPH 311 Contemporary Landscape Architecture, HU (3)

Design:
DSC 101 Design Awareness, HU, G (3)
Graphic Design:
GRA 101 Designing Life (3)
GRA 111 Graphic Design History I, HU (3)
GRA 112 Graphic Design History II (3)
GRA 225 Communication/Interaction Design Theory (3)
GRA 345 Design Rhetoric, L (3)
GRA 401 Creative Environment (3)
GRA 440 Finding Purpose (3)
Industrial Design:
IND 242 Materials and Design (3)

IND 243 Design for Ecology and Social Equity (3)
IND 316 20th-Century Design I, HU, H (3)
IND 317 20th-Century Design II, HU, H (3)
IND 344 Human Factors in Design (3)
IND 354 Principles of Product Design (3)
IND 470 Professional Practice for Industrial Design, L (3)
Interior Design:
INT 111 Interior Design Issues and Theories, HU (3)
INT 121 Introduction to Computer Modeling for Interior Design, CS (3)
INT 123 Introduction to Computer-Aided Design of Built Environments (3)
INT 131 Design and Human Behavior, SB (3)
INT 310 History of Interior Design I, HU, H (3)
INT 311 History of Interior Design II, HU, H (3)
INT 412 History of Decorative Arts in Interiors, HU (3)
INT 413 History of Textiles in Interior Design (3)
INT 415 Latin American Design (3)

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu
CDN 162
herbergeradvising@asu.edu
480-965-7007

## Digital Culture Minor (HIDGCMIN)

Campus: TEMPE

Description: The digital culture minor in the Herberger Institute for Design and the Arts focuses on the creative exploration of how new media is influencing our culture, or rather, the way we live, learn, create and communicate. The digital culture minor allows students to enhance their program of study with integrated, interdisciplinary training in creative processes and technical skills in new media with cultural applications. The curriculum is outcomes based rather than course sequence based. The curriculum uses an innovative proficiency-based network to connect courses across academic disciplines, instead of traditional methods such as course prerequisites. Proficiencies in the curriculum identify common generalized learning outcomes across disciplines participating in the initiative.

Program Requirements: The digital culture minor requires 21 credit hours (12 upper division) in four areas:

- Digital culture core (9).
- Digital media (6).
- Historical and theoretical studies in digital culture or related digital culture (3).
- Capstone culminating project (3).

A student must have a minimum GPA of 2.50 to be eligible to pursue the minor. A minimum grade of a " C " (2.00) and an overall GPA of 3.00 is required in all classes in the minor. Courses in the minor may not be used as part of a major. A minimum of 12 upper division semester hours of credit at ASU is required.

Enrollment Requirements: The Digital Culture Initiative will employ a specialized advisor/education program coordinator dedicated to advising students in the minor. There is no special application process for the digital culture minor.
Students add the minor by meeting with the academic advisor for their major. Students also are also required to meet with the digital culture education coordinator to develop the digital culture pathway that best meets the proficiencies for the work they are interested in pursuing.

## Contact Information:

Design and the Arts, Herberger Institute for
Arts, Media and Engineering Sch T
http://herbergerinstitute.asu.edu/degrees/digital_culture/
CDS 101
480-965-4495

## Economics Minor (LAECNMIN)

Campus: TEMPE
Description: The program of study is designed for students planning to seek employment upon completion of their undergraduate studies or for students intending to go on to graduate school or law school.

Program Requirements: This minor (and B.I.S. area of concentration) requires 18 credit hours of course work which includes ECN 211 and 212, and 12 hours of economics courses at the 300 level or above for which all prerequisites have been met. Only courses in which a student receives a grade of " C " (2.00) or higher may be used to meet these requirements.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information: http://wpcarey.asu.edu/ecn/advising.cfm.

## Contact Information:

Liberal Arts and Sciences, College of
Economics Program in CLAS
http://clas.asu.edu/minorscerts
BAC 653
wpcareyecn@asu.edu
480-965-2128

## Economics for Students Planning a Career in Law Minor (LAECNLMIN) <br> Campus: TEMPE

Description: The program of study is designed for students planning to seek employment upon completion of their undergraduate studies or for students intending to go on to graduate school or law school.

Program Requirements: This minor requires 18 credit hours of course work that includes ECN 211, 212, 312 (formerly 314), 450, 453 and one additional economics course at the 300 level or above for which all prerequisites have been met. Only courses in which a student receives a grade of " $C$ " $(2.00)$ or higher may be used to meet these requirements.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have
been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information: http://wpcarey.asu.edu/ecn/advising.cfm.

## Contact Information:

Liberal Arts and Sciences, College of
Economics Program in CLAS
http://clas.asu.edu/minorscerts
BAC 653
480-965-2128

## English Minor (ASENGMIN)

## Campus: WEST

Description: A minor in English represents an ideal choice for students who enjoy English, but who are committed to another major. The requirements ground the student in the basics of literary and cultural study, and then allow for a range of course offerings in creative writing, linguistics, rhetoric, literature and technical and professional communication. The minor will help the student to become a better writer, reader and thinker, making the English minor the perfect complement to any major.

Program Requirements: The minor in English requires a minimum of 24 credit hours, of which 18 must be upper division (300-400 level).
Required Core Course (3 credit hours)
ENG200 Critical Reading and Writing about Literature L/HU (3)
Campus Specific Requirements
Distribution Cluster Requirement ( 15 credit hours, of which six must be upper division)
Select one course from each distribution cluster (see advisor for specific course offerings). At least two courses must be at the 400level. Students may once only, use one course to satisfy two distribution requirements.

- Ethnicity, gender and postcoloniality.
- Literature and culture before 1860.
- Literature and culture after 1860.
- Rhetoric, writing and linguistics.
- Theory and interdisciplinary studies.

Additional hours, to complete 24 credit hours, are electives chosen from program offerings. Eighteen credit hours overall must be upper division.

Enrollment Requirements: Students wishing to pursue the English minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken. The student should also consult with an academic advisor in the college, division, or department of his or her major to make sure they recognize the minor, and to have the minor added to the program of study.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/english
FAB N201
harcs.dept@asu.edu
602-543-4444

## English Minor (LSENGMIN)

Campus: POLY
Description: The minor in English focuses on effective writing, critical thinking and sophisticated reading of literary and non-literary texts.

Program Requirements: This minor requires 24 credit hours of ENG courses, to include ENG 200, and a minimum of 12 upperdivision hours, of which six credit hours must be taken through the School of Letters and Sciences. All course work for the minor must be completed with a grade of "C" (2.00) or higher.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 233
sls@asu.edu
480-727-1526

## English Minor with a Concentration in Linguistics Minor (LAENGMINN) Campus: TEMPE

Description: In the minor in English with a concentration in linguistics, students study the history and structure of language.

Program Requirements: The minor in English with a concentration in linguistics consists of 24 credit hours. Required courses are as follows:
ENG 200 Critical Reading and Writing About Literature, L/HU (3)
ENG 213 Introduction to the Study of Language (3)
ENG 221 Survey of English Literature, HU (3) or
ENG 222 Survey of English Literature, HU, H (3) or
ENG 241 Literatures of the United States to 1860, HU (3) or
ENG 242 Literatures of the United States, 1860 to Present, HU (3)
ENG 312 English in Its Social Setting, L/HU/SB (3)
ENG 314 Modern Grammar (3)
ENG 413 History of the English Language, HU (3)
The six additional hours are electives chosen from the department's offerings, with at least one course (three hours) required at the 300 or 400 level. A grade of " $C$ " (2.00) or higher is required in all courses for the minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://english.clas.asu.edu
LL 542
englishadvising@asu.edu
480-965-3168

## English Minor with a Concentration in Literature Minor (LAENGMINT)

Campus: TEMPE
Description: Students pursuing a minor in English with a concentration in literature study British, American and global literatures in English from the earliest writings to the present.

Program Requirements: The minor in English with a concentration in literature consists of 24 credit hours, including ENG 200 Critical Reading and Writing About Literature, L/HU (3) and one course from three of the following distribution areas:

- Literature and culture before 1800.
- Literature and culture after 1800.
- Literary theory and interdisciplinary studies.
- Transnational, postcolonial and global literatures.

At least one of these three distribution area courses must be 400-level. To complete the 24 credit hours, students choose electives from among the department's offerings. At least four courses ( 12 of the 24 hours) must be taken at the 300 or 400 level. A grade of " C " (2.00) or higher is required in all courses taken for the minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://english.clas.asu.edu
LL 542
englishadvising@asu.edu
480-965-3168

## Ethnic Studies Minor (ASETHMIN)

Campus: WEST

Description: Students take courses that introduce a general conceptual framework regarding race and ethnicity and how they intersect in the construction of social formations. Students seeking the minor in ethnic studies complete an internship that is designed to give a hands-on experience working in community-based settings. With an emphasis on service learning, which combines the acquisition of analytical skills from classroom instruction and work experience gained through internships, students are placed at a significant advantage to pursue their goals.

Program Requirements: The minor consists of 21 credit hours, 15 of which must be at the upper-division level. Students are encouraged to take courses that develop breadth rather than limiting their selection to courses in one particular discipline. Up to three credit hours of individualized instruction may be applied toward the minor. All courses must be passed with a minimum grade of "C" (2.00).
Required Courses ( 6 credit hours):
ETH 300 Principles of Ethnic Studies, C (3)
ETH 484 Ethnic Studies Internship (3)
Electives ( 15 credit hours):
These courses must be chosen from the approved ethnic studies course list in consultation with the ethnic studies advisor.

Enrollment Requirements: Students wishing to pursue the ethnic studies minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken. The student should also consult with an academic advisor in the college, division, or department of his or her major to make sure they recognize the minor, and to have the minor added to the program of study.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/ethnicstudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Family and Human Development Minor (LAFASMIN)

Campus: TEMPE
Description: A minor in family and human development, from the School of Social and Family Dynamics, exposes students to the basic course work and issues within the discipline. This program provides an exceptional balance to studies in psychology, communication, education, business or nursing.

Program Requirements: The minor in family and human development consists of 18 credit hours in which students specialize in family studies/child development. At least 12 of the 18 credit hours must be in upper-division courses. Students take the following courses:

CDE 232 Human Development, SB (3)
FAS 101: Growth in Personal Relationships, SB (3)
FAS 370 Family, Ethnic, and Cultural Diversity, SB, C (3)
Three courses (or nine credit hours) must be selected from the following and at least one course must be a CDE course:
CDE 337 Early Childhood Intervention (3)
CDE 430 Infant/Toddler Development in the Family, SB (3)
SOC 418 Aging and the Life Course (3)
CDE 498 Pro-Seminar (3) or FAS 498 Pro-Seminar (3)
FAS 301 Introduction to Parenting (3)
FAS 331 Marriage and Family Relationships, SB (3)
FAS 332 Human Sexuality, SB (3)
FAS 431 Parent-Adolescent Relationships, SB (3)
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of School of Social and Family Dynamics http://ssfd.clas.asu.edu/

## Film and Media Production Minor (FAFMPMIN)

Campus: TEMPE
Description: Students pursuing the film minor will study the basic production processes of film while exploring its history and contemporary social issues.

Program Requirements: The school offers a minor in film and media production consisting of 18 credit hours of course work. A grade of " $C$ " (2.00) or higher is required for all courses in the minor. All prerequisites for the minor courses must be met. Transfer students may transfer up to six credit hours toward the minor.
The following courses are required, for a total of 12 credit hours:
FMP 201 Film The Creative Process I, HU (3)*
FMP 250 Sex and Violence in Film and TV: Ethics Survey (3)
FMP 300 Focus on Film: Film Production for Nonmajors (3)
THE 403 Independent Film (3)
*Students considering a minor in theatre concurrently must complete an additional course in theatre or film to make up for the overlapping FMP 201 course.
Also required are six credit hours of upper division electives related to film and media production. Choose from courses with the FMP, THP or THE prefix. Contact the school for options and course requirements.
Courses ordinarily limited to majors only are available to minors on a second-priority basis; that is, minors may not register for these courses early, but are allowed to register after all major students' needs have been met.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Theatre and Film
http://theatrefilm.asu.edu
GHALL 232
herbergeradvising@asu.edu
480-965-5337

## Film and Media Studies Minor (LAFMSMIN)

Campus: TEMPE
Description: The film and media studies minor is useful for students who want to explore the critical and creative study of film and media. Students can select to study a range of courses that emphasize media and society, media industries, styles and genres and screenwriting.

Program Requirements: The film and media studies minor consists of 18 credit hours. Of the 18 credit hours, 12 credit hours are upper division courses. Required courses include:
FMS 100 Introduction to Film, HU
FMS 200 Film History, (L or HU) and H
FMS 300 Television and Cultural Studies, L or HU
Three upper-division courses from the areas of emphasis course list

For more information contact the film and media studies advisor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have the accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering the minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allow the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://film.asu.edu/minor
LL 641
filminfo@asu.edu
480-965-6747

## Food and Nutrition Management Minor (ECFNTRMIN)

Campus: DTPHX
Description: This minor is available to any ASU student interested in learning about food and nutrition. The student will develop a greater understanding of nutrition, the food industry and food service operations.

Program Requirements: The minor requires that students take the following courses, for a total of 18 credit hours:
NTR 100 Introductory Nutrition (3) or NTR 241 Human Nutrition (3)
NTR 142 Applied Food Principles (3)
NTR 300 Computer Applications in Nutrition CS (3)
NTR 343 Food Service Purchasing (3)
NTR 344 Nutrition Services Management L (3)
NTR 445 Management of Food Service Systems (3)

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if:

- The college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met.
- The college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.

A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
HSC 1386
healthpromotion@asu.edu
480-727-1728

## French Minor (LAFREMIN)

Campus: TEMPE

Description: Students pursuing a minor in French gain an understanding of the language, literature, and cultures of French speaking peoples and regions. There are opportunities to partake in study abroad programs, which can serve to enhance a student's minor experience and education.

Program Requirements: The French minor requires 18 upper-division credit hours. In addition, specific required courses for each area follow and are in a brochure in the School of International Letters and Cultures. Course substitutions are allowed for heritage and advanced speakers of the language. Required courses include:
FRE 311 French Conversation, G (3)
FRE 312 French Composition, G (3)
FRE 321 French Literature, L/HU, H (3) or FRE 322 French Literature, L/HU (3)
Nine hours of upper-division French courses with at least three hours from the 400 level are also required.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Geography Minor (LAGCUMIN)

Campus: TEMPE
Description: The minor in geography enables students to be as broad or specific in their geographic education as they wish. Beyond the two required courses, the remaining courses should be chosen in consultation with the geography advisor.

Program Requirements: A minor in geography is awarded to students who complete a minimum of 18 hours in geography. A grade of " $C$ " (2.00) or higher is required for all courses taken for the minor. The following lower-division courses are required, for a total of six credit hours:
GCU 102 Introduction to Human Geography, SB (3)
GPH 111 Introduction to Physical Geography, SQ (4) or GPH 411 Physical Geography (3)
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/
COOR 5673
geoplan@asu.edu
480-965-7533

## Geological Sciences Minor (LAGLGMIN)

## Campus: TEMPE

Description: The geological sciences minor is designed for students interested in developing a basic understanding of earth science and analyzing issues through a scientific viewpoint. A minimum of 21 hours of geological science courses is required including two upper-division electives chosen after consultation with an academic advisor.

Program Requirements: A minor in geological sciences is awarded to students who complete a minimum of 21 credit hours of geological science courses. There are 15 credit hours of required courses:
GLG 101 Introduction to Geology I (Physical), SQ* G (3)
GLG 102 Introduction to Geology II (Historical), SG**, H (3)
GLG 103 Introduction to Geology I-Laboratory, SQ* (1)
GLG 104 Introduction to Geology II-Laboratory, SG** (1)
GLG 310 Structural Geology (3)
GLG 321 Mineralogy (3)
GLG 400 Geology Colloquium (1)
*Both GLG 101 and 103 must be taken to secure SQ credit.
**Both GLG 102 and 104 must be taken to secure SG credit.
The remaining six semester hours may be chosen among other upper-division geological sciences courses, except GLG 300 and 400 , after consultation with a departmental advisor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
All students will be required to meet with an academic advisor in the School of Earth and Space Exploration (SESE) to declare the minor and confirm that the requirements are being met. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows recognition of the minor. The DARS system will be used for tracking student progress and verifying completion of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which courses in the minor are simultaneously being used to fulfill core requirements of the student's major.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Geological Sciences
http://sese.asu.edu
PSF 686
sesinfo@asu.edu
480-965-5081

## German Minor (LAGERMIN)

Campus: TEMPE

Description: Students pursuing a minor in German gain an understanding of the language, literature, and cultures of German speaking peoples and regions. There are opportunities to partake in study abroad programs, which can serve to enhance a student's minor experience and education.

Program Requirements: Required courses include:
Two GER 200-level courses (6)
GER 311 German Conversation, G (3) or GER 312 German Conversation, G (3)
GER 313 German Composition, G (3)
One 400-level GER course (3)
One upper-division GER course (3)
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that achievement officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL440
silcadvising@asu.edu
480-965-6281

## Global Health Minor (LASSHMIN)

Campus: TEMPE
Description: The minor in global health is an interdisciplinary program designed for students who seek a broad and flexible set of skills for understanding contemporary health challenges and thinking about how they might best be solved. "Global" is understood in the anthropological sense, meaning ways of understanding and addressing disease, health and well-being that can incorporate all cultures, places and time, and that can integrate knowledge of health's social, historical, biological and ecological dimensions.

Program Requirements: The minor is comprised of 18 credit hours. Students must complete the following:

- SSH/ASB 100 Intro to Global Health.
- Time depth course.
- Poverty, justice and global health course.
- Culture society and health course.
- An approved global health study abroad (summer session, six credits minimum).

Enrollment Requirements: Students must speak with an advisor in the School of Human Evolution and Social Change to declare a minor.

## Contact Information:

Liberal Arts and Sciences, College of
School of Human Evolution \& Social Change
http://shesc.asu.edu/degree-ug
SHESC 233
shesc.undergrad@asu.edu
602-965-6215

## Global Studies Minor (LASGSMIN)

Campus: TEMPE

Description: The School of Politics and Global Studies offers a minor in global studies for students who wish to examine global issues from a transdisciplinary perspective focused on an overarching theme of quality of life.

Program Requirements: The global studies minor consists of 18 credit hours, with at least 12 credit hours in upper division courses.
Required courses are:
SGS 101 Thinking Globally: Individual and Authority (3) or SGS 301 Principles of Global Studies (3)
SGS 303 Global Trends (3)
The remaining 12 credit hours may be chosen among additional SGS courses. The student must earn at least a " C " (2.00) in a course for credit hours to be counted toward the minor. Twelve of the 18 credit hours must be taken at the ASU Tempe campus. Only three credits of SGS 484: International Internship may be counted toward the minor. For minor verification, students must consult the global studies advisor.

Enrollment Requirements: Students who wish to pursue minors should get the permission of the department of their major as well as meet with the global studies advisor in the School of Politics and Global Studies.

## Contact Information:

Liberal Arts and Sciences, College of
School of Politics and Global Studies
http://pgs.clas.asu.edu/
COOR 6705
globalstudies@asu.edu
480-965-8563

## History Minor (ASHISMIN)

Campus: WEST

Description: The minor in history, within the New College of Interdisciplinary Arts and Sciences, trains students in the use of basic tools and methods of the historical discipline. Students are exposed to a broad span of modern history, a wide range of historiographical perspectives and approaches, and such fundamental categories of historical analysis as race, class, gender and ethnicity.

Program Requirements: The minor in History consists of 18 credit hours of history course work with a grade of " C " (2.00) or higher, of which 12 credit hours must be upper division (300-400 level).
Choose one of the following combinations ( 6 credit hours):
HST 109 United States to 1865, HU/SB, H and
HST 110 United States since 1865, SB, H
or
HST 100 Global History to $1500, \mathrm{HU}, \mathrm{H}, \mathrm{G}$ and
HST 101 Global History since 1500, HU, G, H
or
HST 313 American Cultural History I, SB, H and
HST 314 American Cultural History II, HU/SB, H
or choose two of three offered:
HST 102 Western Civilization, SB, H
HST 103 Western Civilization, HU/SB, H
HST 104 Western Civilization, HU/SB, G, H

Upper division requirement (3 credit hours):
HST 300 Historical Inquiry, L/HU/SB, H
History electives (9 credit hours)

Enrollment Requirements: Students wishing to pursue the History minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken, to sign the minor check sheet, and to have the minor added to their program of study. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major recognizes the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/history
FAB N201
harcs.dept@asu.edu
602-543-4444

## History Minor (LAHISMIN)

Campus: TEMPE

Description: Students who pursue the minor in history study the growth and development of human society from all aspects political, social, economic and cultural. The school covers the history of Europe, the U.S., Asia, Latin America and Africa, and courses are designed to give students both breadth and depth in understanding today's complex world.

Program Requirements: The history minor consists of 18 credit hours of course work, at least 12 hours of which are in upperdivision course work. Students earning a minor in history must complete one 12-hour HST geographic concentration (U.S., Europe, Asia or Latin America). The School of Historical, Philosophical and Religious Studies requires a grade of at least "C" (2.00) in all courses in the minor. A minimum of six upper-division hours in the minor must be taken in residence at the Tempe campus.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/history
COOR 3rd floor Advising Center
SHPRSadvising@asu.edu
480-965-8364

## History Minor (LSHISMIN)

Campus: POLY

Description: The minor in history focuses on American history, European history, Southwest history, environmental history and related fields.

Program Requirements: This minor requires 18 credit hours of HST courses to include a minimum of 12 upper-division hours, of which six credit hours must be taken through the School of Letters and Sciences. All course work for the minor must be completed with a grade of "C" (2.00) or higher.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 233
sls@asu.edu
480-727-1526

## Human Nutrition Minor (ECNTRMIN)

Campus: DTPHX
Description: This minor program is available to any ASU student interested in learning about human nutrition. The student will develop a greater understanding of how nutrition contributes to healthy lifestyles and disease prevention.

Program Requirements: The minor requires that students take the following courses, for a total 18 credit hours:
NTR 241 Human Nutrition (3)
NTR 340 Applications in Human Nutrition (3)
NTR 341 Introduction to Planning Therapeutic Diets (3)
NTR 440 Advanced Human Nutrition I (3)
NTR 441 Advanced Human Nutrition II (3)
NTR 444 Medical Nutrition Therapy (3)

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
HSC 1386
healthpromotion@asu.edu
480-727-1728

## Interdisciplinary Organizational Studies Minor (ASIOSMIN)

Campus: WEST
Description: The minor in interdisciplinary organizational studies is designed to increase students' understanding of the behavior and the dynamics of individual, group and organizational processes in the workplace. It incorporates perspectives from the behavioral and social sciences, communication studies and management. The minor is learner-centered and allows students to select course work that matches their career and educational goals.

Program Requirements: The minor consists of 21 credit hours, of which 18 must be upper-division course work.
Required Courses (12 credits)
ASB 440 Women in the Global Factory, SB, G (3) or POS 437 Women, Power, Politics, SB, C (3)
PGS 430 Industrial Psychology (3) or SBS 461 Program Evaluation and Policy Research (3)
PGS 453 Organizational Behavior, SB (3)
Research methods course (3)*
Cluster 1: Courses Focused on Organizations
Choose two from the following courses for a total of six credits:
COM 450 Theory and Research in Organizational Communication, SB (3)**
COM 451 Communication and Work Relationships (3)**
COM 453 Communication Training and Development (3)**
GLB 303 Relationship Management (3)
MGT 301 Principles of Management (3)
MGT 412 Managing Human Resources (4)

PGS 430 Industrial Psychology (3)***
PGS 482 Social Influence and Consumer Behavior, SB (3)
PHI 360 Business and Professional Ethics, HU (3)
RTM 301 Leadership in Recreation and Tourism (3)
SBS 461 Program Evaluation and Policy Research (3)***
SOC 324 Work and the Workplace, SB, H (3)
SOC 419 Organizations and Technological Change, G (3)
PGS 484, COM 484, or SOC 484 (or others) Internship in Organizations (3)

The internship site must be approved by the SBS advisor.
Cluster 2: Courses Focused on Diversity Within Organizations
Choose one from the following courses for a total of three credits:
COM 463 Cultural and Intercultural Communication Theory and Research, SB, G (3)**
PGS 480 Cross-Cultural Social Psychology, SB, G (3)
POS 437 Women, Power, and Politics, SB, C (3)
SOC 270 Racial and Ethnic Minorities, SB, C (3)
SOC 400 Perspectives on Aging, SB (3)
SOC 426 Social Inequality, SB (3)
WST 380 Race, Class, and Gender, SB, C (3)

* SBS advisor's approval is required.
** Prerequisites COM 308 and 309 may be waived for students not majoring in communication studies.
*** Course may be selected if not used to fulfill core requirements.

Enrollment Requirements: The minor in interdisciplinary organizational studies is open to all undergraduate majors. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division and visit the website for more information.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/IOS
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Interior Design History Minor (ARINTMIN)

## Campus: TEMPE

Description: The minor in interior design history is available to students interested in design and culture. The courses designated for the minor are part of the professional studies in interior design within the program of interior design. Moreover, the courses serve to inform the students about the importance of the global community, especially sociocultural groups, and the impact of the global community on the design of the interior environment.

Program Requirements: The selected courses satisfy the minimum requirement ( 18 credit hours, 12 of which must be from the 300 or 400 level) for the minor. To enhance the understanding of the subject matter, the selected courses are sequential in nature and require certain prerequisites. Consequently, students should carefully note the semester in which any of these courses are offered. Required Courses:
DSC 101 Design Awareness, HU, G (3)
INT 111 Interior Design Issues and Theories, HU (3)
INT 310 History of Interior Design I, HU, H (3)
INT 311 History of Interior Design II, HU, H (3)

INT 412 History of Decorative Arts in Interiors, HU (3)
INT 413 History of Textiles in Interior Design (3)
Students must have an overall GPA of 2.50 or higher and achieve a minimum 2.50 GPA in minor classes to be awarded the minor.
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/design.php
CDN 162
herbergeradvising@asu.edu
480-965-8947

## Italian Minor (LAITAMIN)

## Campus: TEMPE

Description: Students pursuing a minor in Italian gain an understanding of the language, literature and cultures of Italian speaking peoples and regions. There are opportunities to partake in study abroad programs, which can serve to enhance a student's minor experience and education.

Program Requirements: The Italian minor requires 18 upper-division credit hours. In addition, specific required courses for each area follow and are in a brochure in the School of International Letters and Cultures. Course substitutions are allowed for heritage and advanced speakers of the language. Students may use 6 hours from the 200 -level toward the minor. A minimum of 12 hours must be upper division.

Required courses include:
ITA 311 Italian Conversation, G (3) or ITA 312 Italian Composition, G (3) or ITA 315 Italian for Business (3)
ITA 321 Introduction to Italian Literature I (3) or ITA 322 Introduction to Italian Literature II (3)
One 400-level ITA course (3)

The remaining elective courses should be chosen to fulfill the upper division requirements set by the college. Students may use a maximum of 6 credits from the 200 -level.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of

School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Justice Studies Minor (LAJUSMIN)

Campus: TEMPE
Description: The minor in justice studies is designed for students interested in developing an understanding of meanings of justice and injustice and analyzing often controversial issues through critical inquiry and social science investigation.

Program Requirements: Eighteen credit hours of graded classroom JUS course work are required, including JUS 105 or 305 and JUS 303. No pass/fail or noncredit course work may be applied to the minor. A minimum of nine credit hours must be resident credit at the Tempe campus, and at least 12 credit hours must be upper-division. Students must receive a minimum grade of " $C$ " (2.00) for all courses in the minor and meet all course eligibility requirements, including prerequisites.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://justice.clas.asu.edu
WILSN 125
justiceinfo@asu.edu
480-965-7682

## Kinesiology Minor (LAKINMIN)

Campus: DTPHX, TEMPE

Description: The kinesiology minor is for the student interested in gaining a disciplinary knowledge of anatomical, biomechanical, developmental, neural, physiological, and psychological mechanisms underlying human movement.

## Program Requirements:

- To be eligible to declare a minor in kinesiology, students must have at least 24 earned credit hours and a minimum 3.30 cumulative ASU or transfer GPA.
- The minor in kinesiology consists of the 21 credit hours shown below and 15-21 credit hours of prerequisite courses.
- All prerequisite courses must be completed with a grade of "C" (2.00) or higher before taking the respective kinesiology core course.
- KIN 101 Introduction to Kinesiology must be completed with a "B-" (2.67) or higher.
- All other kinesiology courses must also be completed with a grade of "C" (2.00) or higher.
- In addition, to remain eligible to continue in the kinesiology minor, students will have to maintain a GPA of 3.00 or above in all of the courses required for the minor (including prerequisites without the 'KIN' prefix).

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have
been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/node/5672
PEBW 218
kinesundgrad@asu.edu
480-965-3875

## Landscape Architecture Studies Minor (ARLNDMIN)

## Campus: TEMPE

Description: The minor in landscape studies is designed for students who have an interest in landscape aesthetics, but are pursuing a major in another field. The course selection is intended to provide greater understanding of landscape issues that may be relevant in related professional disciplines and to broaden knowledge about the landscape in which we live.

Program Requirements: A minimum of 18 credit hours (to include 12 credit hours of upper-division course work) are required for the minor.
Required Courses:
ALA 100 Introduction to Environmental Design, HU, G, H (3)
ALA 102 Architecture, Landscape Architecture, and Society, HU,G (3)
LPH 310 History of Landscape Architecture, HU, H (3)
LPH 311 Contemporary Landscape Architecture, HU (3)
Six additional upper-division credit hours of electives in the landscape architecture history and theory concentration must be selected from the following list:
APH 494 Culture of Place, C (3)
APH 511 Energy Environment Theory (3)
ANP 494 Special Topics (1-3)
LPH 394 Special Topics (3)
LPH 410 Social Factors in Landscape and Urban Planning (3)
LPH 411 Landscape Architecture Theory and Criticism (3)
LPH 412 Landscape Ecology and Planning (3)
LPH 413 Southwest Landscape Interpretation (3)
LPH 494 Special Topics (3)
LPH 499 Individualized Instruction* (3)
LPH 598 Special Topics (3)
LPH 485 International Field Studies in Landscape Architecture (6)

* These courses require a petition to the School of Architecture + Landscape Architecture.

A minimum GPA of 2.50 in minor courses is required to earn the minor in landscape architecture studies. In addition, students may not use a core course to count toward the minor. Students pursuing the B.S.D. in architecture must petition the school to request a substitution for any core courses that are also included in the landscape architecture minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.

Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/sala.php
CDN 162
herbergeradvising@asu.edu
480-965-3536

## Life Sciences Minor (ASLSCMIN)

## Campus: WEST

Description: A minor in life sciences can be a valuable asset particularly when paired with an appropriate major. For instance, a biology minor paired with a political science major would provide a good background for someone who wanted to practice environmental law.

Program Requirements: Required Courses
BIO 181 General Biology I, SG (4)
BIO 182 General Biology II, SQ (4)
BIO 320 Fundamentals of Ecology (3)
BIO 322 Fundamentals of Ecology Laboratory (1)
BIO 353 Cell Biology (3)
BIO 354 Cell Biology Laboratory (1)
CHM 113 General Chemistry, SQ (4)
CHM 116 General Chemistry II, SQ (4)
LSC 347 Fundamentals of Genetics (3)
LSC 348 Fundamentals of Genetics Laboratory (1)
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://newcollege.asu.edu/programs/lifesci/
CLCC 217
MNS.Dept@asu.edu
602-543-6050

## Materials Science and Engineering Minor (ESMSEMIN)

Campus: TEMPE
Description: The materials science and engineering minor is designed to give other science and engineering majors an in-depth understanding of materials, including their structure, processing, properties, performance and relationships.

Program Requirements: Students are required to take six courses ( $20-21$ credits), listed below:
CHM 114 (4), or CHM 113 (4) \& CHM 116 (4)
MSE 250 Structure and Properties of Materials (3)
MSE 355 Structure and Microstructure of Materials (3)
MSE 356 Structure and Microstructure of Materials Laboratory (1)
Two MSE courses at the 300 level or higher
One materials-related course from the following list:
BME 318 Biomaterials (4)
CEE 353 Civil Engineering Materials (3)
CHE 458 Semiconductor Material Processing (3)
CHM 471 Solid State Chemistry (3)
EEE 352 Properties of Electronic Materials (4)
EEE 436 Fundamentals of Solid-State Devices (3)
MAE 351 Manufacturing Processes (3)
Any MSE course at the 300 level or higher
PHY 481 Materials Physics I (3)

Enrollment Requirements: Students need sophomore status and a minimum 3.00 GPA to enroll in the minor in materials science and engineering, and a 2.50 GPA in all courses in the minor to receive the minor.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Materials Program
http://engineering.asu.edu/macme
ECG 202
macme@asu.edu
480-965-2335

## Mathematics Minor (ASMATHMIN)

Campus: WEST
Description: The minor in mathematics explores the study of higher mathematics. It is designed to enable the student to understand the mathematics most commonly used in business, economics and science. It is expected that students in the minor will be able to reason, and to find creative solutions to problems that were either presented to them or meaningfully formulated by them. The minor is recommended for students who plan to major in integrative studies, life sciences and business, and those who are preparing for further graduate study.

Program Requirements: The minor in mathematics consists of a minimum of 27 credit hours, of which nine credit hours must be taken in the mathematical sciences and applied computing department.
Required Courses (27)

MAT 270 Calculus with Analytic Geometry I, MA (4)
MAT 271 Calculus with Analytic Geometry II, MA (4)
MAT 272 Calculus with Analytic Geometry III, MA (4)
MAT 300 Mathematical Structures (3)
MAT 342 Linear Algebra (3)

Choose three electives from the following courses, or other approved course, in consultation with a departmental advisor, for a total of nine credits:

MAT 310 Introduction to Geometry (3)
MAT 371 Advanced Calculus I (3)
MAT 411 History and Philosophy of Mathematics, HU, H (3)
MAT 443 Abstract Algebra (3)
MAT 445 Theory of Numbers (3)
STP 420 Introductory Applied Statistics, CS (3)

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://www.newcollege.asu.edu/programs/math_sci/
CLC C217
MNS.Dept@asu.edu
602-543-6050

## Mathematics Minor (LAMATMIN) <br> Campus: TEMPE

Description: The minor in mathematics is designed for students who want to further their knowledge of mathematics and is recommended for students who are majoring in such disciplines as physics, engineering, business, economics and the life and social sciences where the need for quantification in the analysis of phenomena is strong.

Program Requirements: The minor in mathematics consists of a minimum of 18 credit hours. Required courses are as follows, for a total of nine to eleven hours:
MAT 271 Calculus with Analytic Geometry II MA (4) or MAT 266 Calculus for Engineers II (3)
MAT 272 Calculus with Analytic Geometry III MA (4) or MAT 267 Calculus for Engineers III (3)
MAT 342 Linear Algebra (3) or MAT 343 Applied Linear Algebra (3)
Electives must be upper-division courses in mathematics (MAT) or Statistics and Probability (STP). Students may not apply MAT 411 or 485 or a course not offered at ASU to the minor, unless otherwiseapproved by a department advisor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Mathematical and Statistical Sciences
http://math.asu.edu/
PSA 211
math@asu.edu
480-965-7195

## Media Analysis Minor (CSCMOMINA)

Campus: DTPHX

Description: The mass media, more than ever before, plays a vital role in how information is disseminated and how societies are shaped and function. As traditional forms of media and information dissemination change rapidly in an increasingly technological world, it is more important than ever for students to understand the way that media work, as well as learn to evaluate the messages that are sent. All students can benefit from the study of mass communications institutions, functions and techniques. In this minor, students will learn to understand the roles that media play, how they are changing and their impact. They will be given the tools they need to critically evaluate, analyze and interpret media messages in order to become wise consumers of media themselves.

Program Requirements: The minor of media analysis consists of 18 credit hours of course work. This is a requirement consistent with many other minor programs at Arizona State University and at other colleges and universities. The focus of the program is on media analysis. Students in the minor will concentrate on evaluating the impact of information dissemination rather than on topics that focus on the practice of gathering and distributing messages. Students in the minor may not register for courses in the professional journalism curriculum.
To take upper-division courses, the student must be at least a sophomore ( 25 credit hours). To pursue the minor in media analysis, the student must maintain a minimum 2.00 overall GPA, obtain a minimum grade of " " $C$ " " 2.00 ) in each course in the minor and have a major other than journalism and mass communication.
Three specific classes will be required (nine hours). The required classes are:
MCO 120 Media and Society, SB (3)
MCO 240 Media Issues in American Pop Culture (3)
MCO 418 History of Mass Communication, SB, H (3)
In addition, students select three additional courses (nine hours) from the list of electives offered by the Journalism school. The common element of these courses is that they focus on understanding specific aspects of the mass media and how those aspects impact individuals and societies in terms of function, effects, and enculturation. Electives offered include:
MCO 200 Introduction to the Electronic Media (3)
MCO 240 Media Issues in American Pop Culture (3)
MCO 430 International Mass Communication, G (3)
MCO 435 Social Media (3)
MCO 450 Visual Communication, HU (3)
MCO 455 War and the Mass Media (3)
MCO 460 Race, Gender and Media, C (3)
MCO 465 Sports and Media (3)
MCO 473 Sex, Love and Romance in the Mass Media, SB (3)
MCO 494 Special Topic courses (3)
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information: http://cronkite.asu.edu/undergrad/minor_media_analysis.php.

## Contact Information:

Journalism, Walter Cronkite School of
Walter Cronkite School of Journalism \& Mass Comm
http://cronkite.asu.edu
CRONK 220
cronkiteadvising@asu.edu
602-496-5055

Military Leadership Minor (LAMISMIN)
Campus: TEMPE

Description: The minor in military leadership is designed to enhance the student's learning experience by providing tools to prepare them for leadership roles in various organizations including business, government and education. Students complete courses which will cover academic and practical skills in many areas, including:

- Effective communication.
- Leadership ethos.
- Leading, motivating and empowering others.
- Negotiating.
- Problem solving.
- Team building.

Program Requirements: The minor in military leadership consists of 18 credit hours, of which, 12 must be at the 300 or 400 level. Required courses are as follows:
MIS 301 Advanced Military Science I (3)
MIS 302 Advanced Military Science II (3)
MIS 401 Advanced Military Science III (3)
MIS 402 Advanced Military Science IV (3)

At least 12 credits must be in residence on an ASU campus.

The six additional hours are electives chosen from the following course offerings:
MIS 410 American Defense Policy I (3)
MIS 412 American Defense Policy II (3)
MIS 294 Special Topics (3)
MIS 499 Individualized Leadership Instruction (3)
HST 456 Vietnam War (3)
HST 408 Civil War and Reconstruction (3)
Enrollment Requirements: Students wishing to earn a minor in military leadership must first qualify to be enrolled in MIS 301. In order to be eligible for this, students must have completed one of the following:

- Leader's training course in Ft. Knox, KY.
- Prior honorable military service.
- Three years of introductory leadership training in high school JROTC.
- Twelve hours in MIS 100 and MIS 200 level courses.


## Contact Information:

Liberal Arts and Sciences, College of
Department of Military Science
http://militaryscience.clas.asu.edu
SS 330
armyrotc@asu.edu
480-965-3318

## Music Minor (FAMUSMIN)

Campus: TEMPE
Description: The music minor is designed for those students who are interested in a broad introduction to the study of music. The program allows for a diverse exposure to traditional through contemporary music practices, with numerous options to select courses based on students' interests.

Program Requirements: The School of Music offers a minor in music consisting of 24 credit hours of course work, including a minimum 12 credit hours upper division. A minimum grade of " $C$ " (2.00) is required in all courses.
Required Courses (12 credit hours)
MHL 201 Mac Literacy for Musicians* (3)
MUS 194 Performance: Bach to Bebop (3)
MUS 100 Fundamentals of Music Notation (3)
MUS 340 Survey of Music History (3)

Music history: Select two of the following five courses (6 credit hours)
MUS 347 Jazz in America (3)
MUS 355 Survey of American Music (3)
MUS 356 Survey of Musical Theatre (3)
MUS 361 African Music (3)
MUS 410 History of Women in Music (3)
Electives: Choose two of the following five courses ( 6 credit hours)
MUS 354 Rock and Roll (3)
MUS 354 Rock and Roll since 1971 (3)
MUS 354 Hip-Hop (3)
MUS 354 Elvis Presley (3)
MUS 354 The Beatles (3)

* The online version of this course is required.

Note: MHL, MTC, MUP courses may be accepted as electives if the appropriate prerequisites are met and with instructor approval. Music reading and notation skills are a prerequisite for the music minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the school for more information.

## Contact Information:

Design and the Arts, Herberger Institute for
Dean, Herberger Institute for Design and the Arts
http://music.asu.edu
CDS 101
herbergeradvising@asu.edu
480-965-3371

## Nonprofit Administration Minor (PPNLMMIN)

Campus: DTPHX
Description: The minor in nonprofit administration empowers students to positively impact the community in which they work. Course work introduces students to the competencies required for successful professional careers with nonprofit, social sector organizations that exist to improve the quality of life of communities. The nonprofit sector in the U.S. is unique in form and function, with more than 1.2 million organizations in the U.S. The Arizona nonprofit sector also is experiencing robust growth with more than 29,000 registered nonprofits and more than 1,500 new nonprofits formed yearly. The minor allows students enrolled in other undergraduate programs at ASU to broaden their educational experiences. Students from such various disciplines as business, education, museum studies, nursing, public affairs, religious studies, social work and many others might find this program a beneficial supplement to their existing program.

Program Requirements: The minor requires a total of 15 credit hours, six credit hours of required courses and nine credit hours of elective courses. A verification of minor form, available through the school's website is required.
Required core courses (6)
NLM 160 Voluntary Action and Community Leadership (3)
NLM 220 Introduction to Nonprofit Organizations (3)

Choose three elective courses from the following (9)
NLM 300 Fundraising and Resource Development (3)
NLM 301 Sustainable Communities (3)
NLM 302 Inclusive Community Development (C) (3)

NLM 310 Volunteer Management (3)
NLM 430 Managing Nonprofit Organizations (3)
NLM 435 Service Learning for Community Development (3)
NLM 494 Special Topics (3)
PRM 303 Program Planning (L) (3)
PRM 486 Special Events Management
Standards

- A minimum "C" (2.00) grade required for all classes in the minor.
- A minimum GPA of 2.00 for those pursuing the minor; a major or pre-major, other than B.S. in Nonprofit Leadership and Management.
- Fifteen hours of graded classroom course work (no internship, no independent study).
- Must be a junior to take 400 -level courses.
- No double counting of courses for both a major and the minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
Students wishing to pursue the nonprofit administration minor should consult with an academic advisor in the college or department of their majors to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Courses taken as part of a university minor may not count toward both the major degree and the minor. Students pursuing a B.S. in nonprofit leadership and management are not eligible to complete this minor.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Nutrition and Healthy Living Minor (NUNHLMIN)

Campus: DTPHX
Description: The nutrition and healthy living minor will provide a strong knowledge base in nutrition and healthy diet planning to complement many majors.

Program Requirements: The minor requires completion of a minimum of 18 nutrition credit hours.
Required Classes (12)
NTR 241 Human Nutrition (3)
NTR 340 Applications in Human Nutrition (3)
NTR 341 Introduction to Planning Therapeutic Diets (3)
NTR 450 Nutrition in the Lifecycle (3)

Upper Division electives (6)
Select two courses from the following list:
NTR 320 history of Nutrition (3)
NTR 345 Development of Healthy Cuisines (3)
NTR 346 Sports Nutrition (3)
NTR 348 Cultural Aspects of Food (3)
NTR 350 Nutrition Counseling (3)
NTR 351 Nutrition and Health communication (3)
NTR 430 (494) nutrition in the Media (3)
NTR 444 Medical Nutrition Therapy (3)
Additional prerequisites required for these classes: CHM 101 (or 113) and BIO 201.

## Contact Information:

Nutrition and Health Promotion, School of School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/nutrition
HSC 1386
healthpromotion@asu.edu
480-727-1670

## Parks and Protected Area Management Minor (PPPRMMINT)

Campus: DTPHX

Description: As the Southwest continues to develop and urbanize, the demands and pressures on public lands and natural resources continues to grow. The interplay between society and natural resources is key to understanding modernity and continues to be at the center of policy issues and quality of life debates in the West. The minor in parks and protected area management introduces students to the role of parks and protected areas, with a focus on the unique issues faced by urban-proximate natural area managers. The minor allows students enrolled in other undergraduate programs at ASU to broaden their educational experiences. Students from such various disciplines including business, education, nursing, public affairs, social work and many others might find this program a beneficial supplement to their existing program. Students interested in the parks and protected area management minor may also be interested in therapeutic recreation, available through the parks and recreation management program.

Program Requirements: Completion of a parks and protected area management minor in the School of Community Resources and Development requires the follwoing:

- Fifteen hours of graded classroom coursework (no internship, no independent study).
- Twelve hours of course work at the upper-division level, from the approved list.
- A minimum grade of "C"; (2.00) is required for all classes in the minor.
- No double counting of courses for both a major and the minor.

Required core courses (12)
PRM 120 Leisure and Quality of Life (3)
PRM 370 Natural Resource Recreation Planning and Management (3)
PRM 380 Wilderness and Parks in America (3)
TDM 480 Sustainable Tourism (3)

Choose one elective course from the following (3)
PRM 301 Sustainable Communities (3)
PRM 340 Outdoor Survival (3)
PRM 470 Environmental Interpretation and Education (3)
TDM 494 Special Topics, as approved by a SCRD advisor (3)
TDM 448 Heritage and Cultural Tourism (3)

## Standards

- A minimum GPA of 2.00 for those pursuing the minor, a major, or pre-major, other than a B.S. in parks and recreation management.
- Must be a junior to take 400-level courses.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
Students wishing to pursue the parks and protected area management minor should consult with an academic advisor in the college or department of their major to make sure the college or department of the major allows the recognition of the minor. Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Courses taken as part of a university minor may not count toward both the major degree and the minor. Students pursuing the B.S. in parks and recreation management major are not eligible to complete this minor.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Philosophy Minor (ASPHIMIN)

Campus: WEST
Description: The philosophy minor is designed to provide students with an understanding of central philosophical issues. The minor provides students with:

- A knowledge of the most important problems and ideas in the philosophical areas studied.
- A capacity for critical thinking and analytical reasoning.
- The ability to present one's positions effectively through oral and written communication.

Program Requirements: The minor in philosophy consists of 21 credit hours of philosophy course work, of which 15 must be upperdivision hours (300-400 level). Only courses in which the student earns a grade of "C" (2.00 on a scale of 4.00) or higher will fulfill requirements for the minor.
Courses are to be selected from the following list in consultation with an advisor to create a coherent and complete program of study:

MAT 411 History and Philosophy of Mathematics, HU, H (3)
IAS 484 Internship (3)
IAS 494 ST: Special Topics (3)
PHI 101 Introduction to Philosophy, HU (3)
PHI 103 Principles of Sound Reasoning, L/HU (3)
PHI 306 Applied Ethics, HU (3)
PHI 340 Bioethics, HU (3) or IAS 340 Bioethics, HU (3)
PHI 360 Business and Professional Ethics, HU (3)
PHI 406 Moral Dilemmas, L/HU (3) or IAS 406 Moral Dilemmas, L/HU (3)
PHI 407 Environmental Philosophy and Policy, L/HU (3) or IAS 407 Environmental Philosophy and Policy, L/HU (3)
PHI 408 Feminist Ethics, HU (3) or IAS 408 Feminist Ethics, HU (3)
PHI 494 Special Topics (3)
PHI 499 Individualized Instruction (3)
Enrollment Requirements: Students wishing to pursue the philosophy minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken. The student should also consult with an academic advisor in the college, division, or department of his or her major to make sure they recognize the minor, and to have the minor added to the program of study.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/philosophy
FAB N201
harcs.dept@asu.edu
602-543-4444

## Philosophy Minor (LAPHIMIN)

Campus: TEMPE
Description: The minor in philosophy provides students with an understanding of philosophical inquiry and method. The minor offers an introduction to the central themes both in the history of philosophy and in the current literature. Minor students have the opportunity to sharpen their critical reasoning skills while addressing profound questions regarding the nature of:

- Existence.
- Knowledge.
- Law.
- Morality.
- Politics.
- Science.

Program Requirements: A minor in philosophy consists of 18 credit hours, of which at least 12 must be in the upper division and approved by an advisor in the school. All courses must be passed with a minimum grade of "C" (2.00). No more than two courses may be taken in any one of the following philosophical subdisciplines:

- Metaphysics
- Epistemology
- Logic
- History of Philosophy
- Ethics / Political Philosophy

Students should consult with undergraduate advising in the School of Historical, Philosophical \& Religious Studies about a proposed selection of courses before registering.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or school of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the School of Historical, Philosophical and Religious Studies for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/philosophy
COOR 3rd floor Advising Center
SHPRSadvising@asu.edu
480-965-8364

## Physics Minor (LAPHYMIN)

Campus: TEMPE
Description: Physics is concerned with the nature, structure and interactions of matter and radiation. Adding a physics minor to another major program of study provides a student with the fundamental scientific basis to address the most challenging opportunities faced in a student's career.

Program Requirements: Required courses (24)
Choose between the following course combinations (4):
PHY 150 Physics I, SQ (4) or
PHY 121 University Physics I: Mechanics, SQ (3) and PHY 122 University Physics Laboratory 1, SQ (1)*
Choose between the following course combinations (4):
PHY 151 Physics II, SQ (4) or
PHY 131 University Physics II: Electricity and Magnetism, SQ (3) and PHY 132 University Physics Laboratory 2, SQ (1)**
PHY 252 Physics III, SQ (4)
PHY 361 (3)

Two upper-division electives (to be selected with the approval of the physics advisor) (6-7)One lab course: PHY 333 (3) or PHY 334 (2)
*Both PHY 121 and PHY 122 must be taken to secure SQ credit.
**Both PHY 131 and PHY 132 must be taken to secure SQ credit.
A minimum of 12 upper division credit hours are required to complete this minor.
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Physics
http://physics.asu.edu
PSF 470
physics.info@asu.edu
480-965-3561

## Political Science Minor (ASPOLMIN)

## Campus: WEST

Description: The political science minor program is designed to help students gain an understanding of theory, practice and policy underlying political processes locally, nationally and internationally, and train students in research skills necessary for the analysis of complex sociopolitical issues locally and globally.
The program strives to meet these goals by offering students learner-centered course work in political theory, American political institutions and international relations and world affairs. These goals are accomplished by offering a flexible program of course work focusing on international urban, race/ethnic sociopolitical areas, internships and service-learning/action research opportunities. Under the direction of faculty, students throughout the degree program focus on intellectual and concrete policy issues in the greater Phoenix metropolitan area, Arizona, the Arizona-Mexico borderlands, the Americas and the world.

Program Requirements: The minor in political science consists of 18 credit hours in POS courses, 12 of which must be in upperdivision courses.

Required courses
Select two from among the following:
POS 110 Government and Politics, SB (3) or POS 310 American National Government, SB (3)
POS 150 Comparative Government, SB, G (3)
POS 160 Global Politics, SB, G (3)
POS 210 Political Ideologies, SB (3)
Political science electives* (12)

* A maximum of three credit hours of internship and three credit hours of individualized instruction may be used to fulfill requirements.

Enrollment Requirements: The minor in political science is open to all undergraduate majors. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division and visit the website for more information. Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minor.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/politicalscience
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Political Science Minor (LAPOSMIN)

Campus: TEMPE

Description: The minor in political science offers students the necessary skills and knowledge to participate effectively as citizens in a democratic political system and to flourish in the rapidly developing globalization of the world's political institutions, cultures and economies. The major aims to provide students with the tools and skills necessary to make connections linking theory with real world problems and issues.

Program Requirements: The minor in political science consists of 18 credit hours in political science courses, 12 hours of which must be upper-division courses. Students who minor in political science must have two courses from among the following in addition to four POS electives:
POS 110 Government and Politics, SB (3) or POS 310 American National Government, SB (3) (but not both courses)
POS 150 Comparative Government, SB, G (3)
POS 160 Global Politics, SB, G (3)
POS 210 Political Ideologies, SB (3)
Students who minor in political science must have a minimum GPA of 2.00 for all courses that count toward the minor. Courses that count toward the minor must have a grade of "C" (2.00) or higher. No more than three credit hours of POS 484 Internship and three credit hours of POS 499 Individualized Instruction may be applied to the minor. A minimum of six upper division credit hours must be taken in residence at the Tempe campus.

Enrollment Requirements: Students who wish to pursue a minor in political science may do so with the permission of the department, school or college of their major as well as the advisor in the School of Government, Politics and Global Studies. An ASU student who is pursuing a degree at any ASU campus may elect to add a minor offered at any other ASU campus.

## Contact Information:

Liberal Arts and Sciences, College of
School of Politics and Global Studies
http://www.spgs.clas.asu.edu
COOR 6797
480-965-6551

## Psychology Minor (ASPGSMIN)

Campus: WEST

Description: Psychology is the scientific study of the behavior and mental processes of individuals and groups. The study of psychology includes basic and applied courses in the subfields of clinical, developmental, organizational, cross-cultural and social psychology, cognitive systems and behavioral neuroscience. The psychology degree prepares students for immediate employment, as well as for admission to graduate and professional schools. The program emphasizes the development of wide-ranging skills in critical thinking and reasoning, quantitative and qualitative research methods, working collaboratively on teams and presentation of information in oral and written form.

Program Requirements: The minor consists of 22 credit hours in psychology, including the following:
Foundations of Psychological Science
PGS 101 Introduction to Psychology SB (3)
PSY 230 Introduction to Statistics CS (3)
PSY 290 Research Methods L/SG (4)
Social/Developmental Core
Choose one from the following courses (3):
PGS 315 Personality Theory and Research SB (3)

PGS 341 Developmental Psychology SB (3)
PGS 350 Social Psychology SB (3)
Neuroscience Core
Choose two from the following courses* (6):
PSY 320 Learning and Motivation (3)
PSY 323 Sensation and Perception (3)
PSY 324 Memory and Cognition (3)
PSY 325 Physiological Psychology (3)
PSY 330 Statistical Methods (3)
PSY 369 Biology of Human Sexuality (3)
PSY 470 Psychopharmacology (3)
Psychology elective
PGS or PSY upper-division elective (3)

* At least one choice must be PSY 320, 323, 324 or 325. A maximum of three credit hours of research (PGS 399 Supervised Research and PGS/PSY 499 Individualized Instruction) may be used to meet the minor requirements. PGS 484 Internship may be taken for elective credit only. All courses must be passed with a minimum grade of " $C$ " ( 2.00 on a scale of 4.00 ) or higher.

Enrollment Requirements: The minor in psychology is open to all undergraduate majors. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division and see the website for more information. Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/psychology
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Psychology Minor (LAPGSMIN)

Campus: TEMPE
Description: The minor in psychology focuses on appreciating and understanding the human condition from a scientific, psychological point of view. Students completing the minor in psychology should possess breadth of knowledge pertaining to the major principles, theoretical approaches and findings in psychology.
They should also understand and be able to use basic research and quantitative methods in psychology and be able to gather and synthesize psychological findings.
Finally, they should be able to understand the relevance and applicability of psychological principles, approaches and findings to individual, group and social issues. In so doing, they will be prepared as educated citizens to pursue productive careers and engage on a daily basis their increasingly complex, information-rich world.

Program Requirements: The minor in psychology consists of completing the 22 credit hours of course work in the foundations of psychology and the breadth categories described below. Six credit hours of PGS/PSY courses must be completed at the ASU Tempe or Polytechnic campuses.
Required foundation courses:
PGS 101 Introduction to Psychology
PSY 230 Introduction to Statistics
PSY 290 Research Methods
Take one course each from four of the following five clusters:
Biological
PSY 325 Physiological PsychologyPersonality/Mental Health
PGS 315 Personality Theory and Research
PGS 466 Abnormal PsychologyCognitive/Learning
PSY 320 Learning and Motivation

PSY 323 Sensation and Perception
PSY 324 Memory and CognitionDevelopmental
PGS 341 Developmental PsychologySocial
PGS 306 Environmental Psychology
PGS 350/351 Social Psychology/Honors Social Psychology
Note: If a non-psychology statistics course is approved by the Psychology Department to substitute for PSY 230, an additional psychology course (PGS or PSY prefix) must be taken to complete the 22 credit hours of required psychology course work. Internship credit and teaching assistant credit may not be used to satisfy this requirement. For more information, please contact a psychology advisor.

Enrollment Requirements: Students who wish to pursue a minor in psychology may do so with the permission of the department, school or college of their major as well as the advisor in the Department of Psychology. An ASU student who is pursuing a degree at any ASU campus may elect to add a minor offered at any other ASU campus.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Psychology
http://psychology.clas.asu.edu/undergrad/advising
PSY 255
psych.advisor@asu.edu
480-965-7258

## Public Relations and Strategic Communications Minor (HSPRSMIN)

Campus: WEST

Description: The minor in public relations and strategic communication prepares professionals with highly effective communication skills-speaking, writing, cultural sensitivity, critical thinking, problem-solving, media literacy, audience analysis and conflict management-through a number of academic program options.

Program Requirements: The public relations and strategic communications minor will provide students with professional and academic expertise in persuasion and campaign communication, public relations, crisis communication, special events planning, marketing, professional writing and editing (among other areas). Additionally, students will have the opportunity to refine the presentation skills needed for public and community relations. The minor consists of 18 credit hours of upper-division course work, including nine credit hours of required course work and nine credit hours of electives.
Required Core Courses
Choose three of the following courses, for a total of nine credits:
COM 319 Persuasion and Social Influence, SB (3)
COM 320 Communication and Consumerism, SB (3)
COM 353 Professional Communication (3)
COM 454 Rhetorical and Critical Approaches to Public Relations (3)

Electives (9)

Enrollment Requirements: The minor in public relations and strategic communications is open to all undergraduate majors. Students should consult with the advisors in the department of their major to determine if the minor is consistent with their educational goals. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division and see the website for more information.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/prsc
FAB S105

## Public Service and Public Policy Minor (PPPAFMIN)

## Campus: DTPHX

Description: The minor in public service and public policy is designed for students from across the university with an interest in public service and public policy issues. Course work provides basic knowledge of the field and enriches their major with an applied policy focus. Examples include students in journalism, sociology, criminology, the arts, engineering, the sciences and business. The minor has a strong professional and applied focus intended to enhance students' education and ability to seek jobs in the public sector.
The public service sector offers sustainable, exciting and fulfilling career options. With a minor in public service and public policy, students use their knowledge of the public sector as a catalyst to change the world. By understanding the challenges that government faces and being well-versed in the development of multiple, useful and realistic solutions, they can contribute to the development of our local, national and global communities.

Program Requirements: The minor in public service and public policy requires 18 credit hours.
Students must take 12 credits (four courses) of required courses in public service and public policy:
PAF 200 Public Service and Policy in the 21st Century
PAF 300 Public management and administration
PAF 340 Contemporary Policy Challenges
PAF 400 Senior Capstone Project
Students must select six credits (two courses) from the following electives:
PAF 201 Economics and Public Policy
PAF 410 Building Leadership skills
PAF 420 Public Leadership
PAF 470 Topics in public economics and financial management
PAF 471 Public policy analysis
URB 300 Urban and Metropolitan Studies
URB 305 Urban Governance
Other related electives may be selected with advisor approval
Enrollment Requirements: A total of 12 credit hours must be taken in the School of Public Affairs at ASU. These include three of the required courses (PAF 300, 340, and 400) and one of the upper-division electives.
To earn the minor, students must complete all course work in the in minor with a minimum grade of " C "
(2.00) or higher.

A student wishing to pursue a minor should consult with an academic advisor in the unit offering the minor to ensure that the appropriate courses are taken. Students should also consult with an academic advisor in the college or department of his/her major to ensure the college or department of the major recognizes the minor.

## Contact Information:

Public Programs, College of
School of Public Affairs
http://spa.asu.edu/new/explore.htm
UCENT 400
602-496-0450

## Real Estate Minor (BAREAMIN)

Campus: TEMPE
Description: A minor in real estate is designed to provide an understanding of the real estate industry and to complement the major area of study. The minor consists of a strong foundation including real estate fundamentals, law, appraisal and land development. Students may choose from a variety of courses from investing to economics to urban issues to complement the foundation. Students who complete the minor will have established a competitive knowledge base for careers in the real estate industry.

Program Requirements: Students must complete a minimum of 18 credit hours including 12 hours of required courses and six hours of electives.

Students must complete a minimum of 12 hours of resident credit for the minor. All courses must be completed with a grade of " $C$ " (2.00) or higher.

The upper division business courses required or elected for this minor will be restricted to students with 56 earned credit hours, a minimum 2.50 ASU GPA and completed course prerequisites.
Upper-Division Courses (12 credit hours required)
LES 411 Real Estate Law
REA 380 Real Estate Fundamentals
REA 401 Real Estate Appraisal
REA 441 Real Estate Land Development
Elective Courses (6 credit hours required)
CON 472 Developmental Feasibility Reports
DSC 100 Intro to Environmental Design
GCU 361 Urban Geography
PUP 434 Urban Land Economics
REA 456 Real Estate Investments
SGS 310 Global Urban Systems
SOS 325 The Economics of Sustainability
URB 300 Urban and Metropolitan Studies
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Business, W. P. Carey School of
Department of Finance
http://wpcarey.asu.edu/undergraduate/index.cfm
BA 109
wpcareyug@asu.edu
480-965-4227

## Recreation Management Minor (PPRECMIN)

Campus: DTPHX

Description: The minor in recreation management introduces students to community recreation programming and planning for a variety of populations. The minor allows students enrolled in other undergraduate programs at ASU to broaden their educational experiences. Students from such various disciplines including business, education, nursing, public affairs, social work and many others might find this program a beneficial supplement to their existing program. Students interested in the recreation management minor may also be interested in the school's therapeutic recreation program.

Program Requirements: The recreation management minor requires completion of 15 credit hours, six credit hours of required courses and nine credit hours of elective courses. A verification of minor form, available through the school's website is required.
Required core courses (6)
PRM 120 Leisure and the Quality of Life (3)
PRM 303 Program Planning (L) (3)
Choose three elective courses from the following (9)
PRM 302 Inclusive Community Development (C) (3)
PRM 304 Recreation Planning and Facility Development (3)
PRM 315 Community Recreation Systems (3)

PRM 364 Foundations of Therapeutic Recreation (3)
PRM 368 Sports Management (3)
PRM 475 Entrepreneurial Recreation and Tourism (3)
PRM 486 Special Events Management (3)
PRM 494 Special Topics (3)

## Standards

- Fifteen hours of graded classroom coursework (no internship, no independent study).
- A minimum "C" (2.00) grade required for all classes in the minor.
- A minimum GPA of 2.00 for those pursuing the minor, a major, or pre-major, other than Parks and Recreation Management.
- Must be a junior to take 400-level courses.
- No double counting of courses for both a major and the minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue the recreation management minor should consult an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Courses taken as part of a university minor may not count toward both the major degree and the minor. Students pursuing a B.S. in parks and recreation management are not eligible to complete this minor.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Religious Studies Minor (ASRELMIN)

Campus: WEST
Description: The minor in religious studies introduces students to the world's religious traditions and how they are used by humans to interpret experiences and find meaning. Students learn to think critically about religious world views and presuppositions, and explore the relation to contemporary challenges in the world.

Program Requirements: The minor in religious studies consists of 21 credit hours of religious studies course work, of which 18 must be upper-division hours (300-400 level). Only courses in which the student earns a minimum grade of "C" (2.00) can be counted toward the minor. Courses are to be selected in consultation with a program advisor to create a coherent and complete program of study for the minor.
Choose one from the following courses (3 credit hours):
AMS 417 Religious Traditions of the American Southwest, C (3)
REL 320 Religion in America, HU, H (3)
REL 321 Religion in America, L/HU, H (3)
REL 420 Religion in American Life and Thought (3)
Choose two from the following courses ( 6 credit hours):
ENG 424 Milton, HU (3)
HIS 363 Reformation (3)
REL 305 Ritual, Symbol and Myth (3)
REL 390 Women and World Religions, L/SB, G (3) or WST 390 Women and World Religions, L/SB, G (3)
REL 494 ST: Psychology of Religion (3) or AMS 494 ST: Psychology of Religion (3)
REL 494 ST: Science and Religion (3) or IAS 494 ST: Science and Religion (3)
Choose at least one special topics course ( 3 credit hours):
Select from the following prefixes: AMS, COM, IAS, REL, WST. Examples of topics may include spiritual narratives, communication as theology, testimony in a post-metaphysical world, the goddess religions and gender and the environment.

Choose three additional religious studies courses (9 credit hours):
These courses, or other approved courses, must be chosen in consultation with a program advisor and may include REL 484 Internship and/or REL 499 Individual Instruction.

Enrollment Requirements: The minor in religious studies is open to all undergraduate majors. However, students should consult with the advisors in the department of their major to determine if the minor is consistent with their educational goals. Students are encouraged to take courses outside their major and college. Please contact the department for more information.
Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/religiousstudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Religious Studies Minor (LARELMIN)

Campus: TEMPE

Description: Students may pursue the minor in religious studies with regional, national, hemispheric, global and a variety of thematic emphases.

Program Requirements: The minor in religious studies consists of 18 credit hours, at least 12 of which must be in the upper division. REL 207 is required. For minor verification, students must consult an advisor in the School of Historical, Philosophical \& Religious Studies.

Enrollment Requirements: Students who wish to pursue a minor in religious studies may do so with the permission of the department, school or college of their major as well as the advisor in the School of Historical, Philosophical \& Religious Studies. An ASU student who is pursuing a degree at any ASU campus may elect to add a minor offered at any other ASU campus.

## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/religious_studies
COOR 3rd floor Advising Center
SHPRSadvising@asu.edu
480-965-5778

## Romanian Minor (LAROMMIN)

Campus: TEMPE
Description: The minor in Romanian provides students with the means to develop their interests in social cultural and political matters that are marked by a strong language dimension.

Program Requirements: The Romanian minor consists of 18 credit hours of ROM courses beyond ROM 201. This minor is structured so that it requires all ROM courses to be at the upper division (300 and above) level.

- A grade of " $C$ " (2.00) or better is required in all courses to be counted toward the minor.
- A minimum of six upper division hours in the minor must be taken in residence at ASU.
- Pass/Fail courses cannot be used for the minor.
- ROM 101 through 201 are not applicable to the minor.
- Course substitutions are permitted for Heritage speakers and other advanced speakers of Romanian.

Required courses include:
ROM 313 Intermediate Composition and Conversation I, G (3)

ROM 314 Intermediate Composition and Conversation II, G (3)
ROM 411 Advanced Spoken and Written Romanian I, G (3)
ROM 412 Advanced Spoken and Written Romanian II, G (3)
ROM 494 Advanced Romanian Grammar (3)
ROM 499 Individualized Instruction (3)
Enrollment Requirements: Students who wish to add a minor in Romanian to the bachelor's degree program they are pursuing may do so if approved by the department, school or college of the major. Please contact the school for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Russian Minor (LARUSMIN) <br> Campus: TEMPE

Description: Students pursuing a minor in Russian gain an understanding of the language, literature and cultures of Russian-speaking peoples and regions. There are opportunities to partake in study abroad programs, which can serve to enhance a student's minor experience and education.

Program Requirements: The Russian minor consists of any 18 credit hours of Russian courses above RUS 202. SLV 304 Computer Linguistics of the Slavic languages is able to be counted as a Russian course for purposes of the minor.

Enrollment Requirements: Students who wish to add a minor in Russian to the bachelor's degree program they are pursuing may do so if approved by the department, school or college of the major. Please contact the school for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Science, Technology and Society Minor (ECSTSMIN) <br> Campus: POLY

Description: The science, technology and society program offers a minor to students outside the science, technology and society major, regardless of their major field of specialization. Living in a 21st-century world is characterized by rapid technological change and uncertainty. Mastering the intricacies of the interrelationships between technology and human systems will enhance a degree in any area, and arm graduates with the insights and skills required for success in any endeavor.

Program Requirements: The minor in science, technology and society (STS) requires:

- Eighteen credit hours of course work, 12 hours of which must be STS upper-division courses.
- Students who minor in STS must have a minimum GPA of 2.00 for all courses that count toward the minor.
- Courses that count toward the minor must have a grade of "C" (2.00) or higher.
- A minimum of six upper-division hours in the minor must be taken in residence at the Polytechnic campus.

The following courses are required to complete the minor in STS:
STS 101 Introduction to Science, Technology and Society or STS 304 Science, Technology and Society
STS 110 Global Technology and Development or STS 317 Science, Technology and Global Engagement
The following courses are available to complete the STS minor:
STS 301 Research in Science and Technology Studies

STS 302 Philosophy of Science and Technology
STS 303 History of Science and Technology
STS 305 Science and Social Theory
STS 306 Social Effects of Science and Technology
STS 318 Science, Technology and Government
STS 325 Science, Technology and Public Policy
STS 328 Science, Technology and Culture
STS 329 Cultivating Technology in Newly Industrialized Countries
STS 330 Information Technology and Globalization
STS 331 Ethical Issues in Science and Technology
STS 332 Seminar: Global Issues in Science and Technology
STS 364 Science, Technology and National Security
STS 425 Law, Values, and Science and Technology
Enrollment Requirements: A GPA of 2.00 or higher is required for all resident applicants, and 2.50 for nonresident applicants.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 230
sls@asu.edu
480-727-1526

## Slavic Studies Minor (LASLVMIN)

Campus: TEMPE
Description: This minor focuses on Slavic languages and cultures with a concentration in either Bosnian/Croatian/Serbian (BCS) or Polish. It is intended primarily for the students of other departments (e.g., history, cultural anthropology, music, political science, economics) whose professional interests lie in Poland or the countries of South-Eastern Europe. The program places equal emphases on languages, culture and regional studies. The minor develops limited professional linguistic proficiency in either BCS or Polish along with adequate cultural sensitivity.

Program Requirements: The minor in Slavic Studies requires 18 credit hours, including a minimum of 12 upper-division hours. Required Courses

- Any 300 or 400 level RUS, SLV, PLC, or BCS literature or culture course, G (3).
- BCS 311 and 312 Serbo-Croation Composition and Conversation (6) or PLC 311 and 312 Polish Composition and Conversation (6).
- SLV 304 Computational Linguistics of the Slavic Languages, G (3).
- SLV 440 History of the Slavic Languages, G (3).
- SLV 498 Senior Capstone Seminar, G (3).


## Notes for Minor

- A grade of "C" (2.00) or better must be achieved in all courses to be counted toward the minor.
- A minimum of six upper-division hours in the minor must be taken in residence at ASU Tempe campus.
- Course substitutions are permitted for heritage speakers and other advanced speakers of Slavic
languages. Please contact the head of the SILC faculty of German, Romanian and Slavic for more
information.
- Pass/fail courses cannot be used for the minor.
- 201 and 202 language courses are not applicable to the minor.


## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://www.asu.edu/silc
LL 440
silc@asu.edu
480-965-6281

## Small Business Minor (AGSMBMIN)

Campus: POLY

Description: The Morrison School of Management and Agribusiness offers a small business minor. The requirements for the small business minor are 15 hours of the small business core and three hours from the list of approved business-related area courses. For more information please visit our school's website.

Program Requirements: Small Business Core Courses (15)

- BUA 380 Small Business Leadership (3)
- BUA 381 Small Business Accounting and Finance (3)
- BUA 382 Small Business Sales and Market Development (3)
- BUA 383 Small Business Working Relationships (3)
- BUA 384 Small Business Operations and Planning (3)

Business-Area Related Course (3)

- For a list of classes, please visit our website.

Enrollment Requirements: The minor in small business is available to nonbusiness majors and consists of 18 credit hours, with five required courses and one business-related area course.

## Contact Information:

Technology and Innovation, College of
Morrison School of Agribusiness and Resource Mgmt
http://morrison.asu.edu/msma/bua/minor/
PRLTA 330
morrisonschool@asu.edu
480-727-1585

## Social and Behavioral Sciences Minor (ASSBSMIN)

Campus: WEST

Description: The minor offers students an interdisciplinary focus across several fields of the social and behavioral sciences, including communication, sociocultural anthropology, geography, political science, psychology and sociology.

Program Requirements: The minor consists of 18 credit hours, at least 12 credit hours of which must be in upper-division courses. All courses must be completed with a minimum grade of " C " ( 2.00 on a scale of 4.00 ). Students wishing to pursue a minor must meet with an SBS department advisor to construct a minor that reflects a particular area of specialty and interest.
Required courses are (3):
SBS 200 Introduction to Social and Behavioral Sciences, SB (3)
Select one course from the following list (3):
COM 308 Empirical Research Methods, L (3)
COM 309 Rhetorical, Interpretive, and Critical Methods in Communication (3)
SBS 302 Qualitative Methods (3)
SBS 303 Quantitative Methods (3)
SOC 391 Research Methods, L/SB (3)
PSY 290 Research Methods, L/SG (4)
Electives (12)
A maximum of three semester hours of internship and three semester hours of individualized instruction may be used to fulfill requirements. Courses approved for the 12 credit hours in the minor would come from one of the approved themes from the major.

Enrollment Requirements: The minor in social and behavioral sciences is open to all undergraduate majors. Students should consult with the advisors in the department of their major to determine if the minor is consistent with their educational goals. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate
set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division and see the website for more information.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/sbs
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Social Welfare Minor (LASSWMIN)

Campus: DTPHX
Description: The social welfare minor prepares students for work in human service settings where a fundamental knowledge of human relations is required, complements careers in journalism, communications, public administration, nursing and related fields and provides a foundation for students who seek to pursue an M.S.W. The minor enhances and broadens the ability of students to analyze complex family, individual and societal problems in the context of societal values, cultural diversity and other social and economic variables. The minor also contributes to students' understanding of society and social behavior, encourages critical thinking and helps develop communication skills.

Program Requirements: Students should:

- Be at sophomore standing to take 300- or 400-level course.
- Complete 18 credit hours of graded course work (internship or independent study not applicable).
- Complete a minimum of 12 credit hours of resident credit at ASU.
- Complete SWU 171 as the prerequisite for all upper-division SWU courses.
- Earn a grade of "C" (2.00) or higher for all classes in the minor.
- Maintain a cumulative GPA of 2.00 ( 4.00 scale) or higher.
- Meet with a social welfare advisor prior to registration.
- Take a minimum of 12 credit hours of upper-division course work from the approved list.

Required courses:
SWU 171 Introduction to Social Work (3)
SWU 291 Social Service Delivery Systems (3)
SWU 432 Social Policy \& Services (3)

Select three credit hours from the list below:
SWU 374 Diversity and Oppression in Social Work Context (3)
SWU 498 Border Family and Community Asset Building Policies (3)
SWU 457 Southwest Borderlands Immigration Issues (3)
SWU 494 Immigrants and Refugees (3)
SWU 494 Spanish for Human Services (3)
SWU 455 Social Work Practice Skills with Latinos (3)
SWU 498 Lesbian/Gay Issues (3)

Select six credit hours from the following list*:
SWU 303 Micro Human Behavior Social Environment (3)
SWU 340 Macro Human Behavior Social Environment (3)
SWU 498 Pro-Seminar (3)
*Note: Student may select one additional course from the cultural diversity options above.
Lower-division credit hours required: 6
Upper-division credit hours required: 12

Enrollment Requirements: Please meet with a social welfare advisor prior to registration.

## Contact Information:

Public Programs, College of
School of Social Work
http://ssw.asu.edu
UCENT 800
social.work@asu.edu
602-496-0800

## Sociocultural Anthropology Minor (ASASBMIN)

Campus: WEST
Description: The minor is designed to provide students with a substantive understanding of the theoretical assumptions and methodological techniques underlying the field of sociocultural anthropology. Courses provide students with knowledge about and theoretical approaches to cross-cultural studies and transnational research, emphasizing culture and political economy in historical context. Specifically, students minoring in sociocultural anthropology will be expected to demonstrate knowledge and skill in the following areas:

- Anthropological approaches to and explanatory frameworks for the study of social issues in culture and political economy.
- Application of theoretical knowledge to understanding sociocultural practices across local and global contexts.
- Awareness of cultural, ethnic, gender, sexual, class and age differences and commonalties across world social formations.
- Critical thinking and analytical reasoning.
- Development of their own anthropological perspective for use in their everyday lives and future studies or employment.
- Effective oral presentation and written communication.
- Interpretation of cultural practices, social theory and social texts.
- Qualitative research methods in anthropology and other social sciences and interpretive humanities, including ethnographic field research and library research.

Program Requirements: The minor requires 18 credit hours, at least 12 of which must be in upper-division courses. Two courses, ASB 311 and SBS 302, are required. The remaining 12 credit hours may be drawn from ASB courses and from several key SBS courses. All courses must be passed with a minimum grade of "C" (2.00) or higher. Up to six credit hours of lower-division courses and three credit hours of ASB 499 Individualized Instruction may also be applied toward the minor.
Required courses:
ASB 311 Principles of Social Anthropology, SB, G, H (3)
SBS 302 Qualitative Methods (3)
Choose four from the following, for a total of 12 credits:
ASB 102 Introduction to Cultural and Social Anthropology, SB, G (3)
ASB 211 Women in Other Cultures, HU/SB, G (3)
ASB 319 Indigenous Peoples of North America (3)
ASB 339 Grassroots Social Movements, SB (3)
ASB 340 Migration and Culture, SB, G (3)
ASB 342 Mexico-U.S. Borderlands, SB (3)
ASB 346 Marriage and Family Diversity, SB, C (3)
ASB 350 Anthropology and Art, HU (3)
ASB 353 Death and Dying in a Cross-Cultural Perspective, HU/SB, G (3)
ASB 356 Central American Studies, SB, G (3)
ASB 374 Culture and Politics of the Internet (3)
ASB 389 Ethnographic Field Lab (1-6)
ASB 394 Special Topics (1-4)
ASB 440 Women in the Global Factory, SB, G (3)
ASB 441 Sexuality and Culture, SB, G (3)
ASB 442 Urban Anthropology, SB (3)
ASB 445 Globalization, Development, and Resistance, SB, G (3)
ASB 447 Citizenship, Nationalism, and Identity, SB, G (3)

Enrollment Requirements: The minor in sociocultural anthropology is open to all undergraduate majors. Students should consult with the advisors in the department of their major to determine if the minor is consistent with their educational goals. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division and see the website for more information.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/sa
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Sociology Minor (ASSOCMIN)

## Campus: WEST

Description: The sociology program provides students with an understanding of theory, practice, and policy underlying issues of social change and of inequality and diversity from multiple perspectives, including race/ethnicity, gender, economic position, age, geographic location and position in the global political economy. The student minoring in sociology will learn how it enhances one's understanding of social realities and institutions at local, national and international levels, and how sociology contributes to the other social sciences and to the humanities. Students gain a basic understanding of the assumptions underlying the discipline of sociology and develop the research skills necessary for analysis of complex social issues. These objectives are met by offering a flexible program and by providing the student with individual and group experiences in working with faculty on concrete intellectual and policy issues.

Program Requirements: The minor in sociology requires 18 credit hours in sociology, of which 12 hours must be upper-division courses.
Required courses are:
SOC 101 Introductory Sociology, SB (3)
Select one of the following courses (3):
SBS 303 Quantitative Methods (3)
SBS 304 Social Statistics I, CS (3)
SOC 486 Contemporary Theory, SB (3)
SOC 390 Social Statistics I, CS (3)
SOC 391 Sociological Research, SB (3)
SOC 483 History of Social Thought, SB (3)
Additional sociology electives (12)
Enrollment Requirements: The minor in sociology is open to all undergraduate majors. Students should consult with the advisors in the department of their major to determine if the minor is consistent with their educational goals. A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Please contact the division and see the website for more information.

Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/sociology
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Sociology Minor (LASOCMIN)

## Campus: TEMPE

Description: A minor in sociology from the School of Social and Family Dynamics exposes students to the basic course work and issues within the discipline. This program provides an exceptional balance to studies in psychology, communication, education, business and nursing.

Program Requirements: The minor in sociology requires 18 hours, of which 12 hours must be upper-division courses. Required courses are:
SOC 101 Introductory Sociology, SB (3)
SOC 391 Sociological Research, SB (3) or SOC 483 History of Social Thought, SB (3) or SOC 486 Contemporary Theory, SB (3) or SBS 303 Quantitative Methods (3) or SBS 304 Social Statistics I CS (3) or SOC 390 Social Statistics I CS (3)
Additional sociology electives (12)
Enrollment Requirements: Students who wish to pursue a minor in sociology may do so with the permission of the department, school or college of their major as well as the advisor in the School of Social and Family Dynamics. An ASU student who is pursuing a degree at any ASU campus may elect to add a minor offered at any other ASU campus.
Please contact the school for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social and Family Dynamics
http://ssfd.clas.asu.edu/
SS 144
email@ssfd.info
480-965-6978

## Spanish Minor (ASSPAMIN)

Campus: WEST
Description: The Spanish program consists of three emphases: language, literature and cultures. These emphases are integrated within the discipline and with other disciplines within the New College of Interdisciplinary Arts and Sciences.
The program also allows credit for internships in social and business agencies. This school-to-work experience, in addition to offering the student possible entry-level job opportunities, provides stimulating linguistic and cultural rewards outside of the campus environment.

Program Requirements: The minor in Spanish consists of 18 upper division credit hours (300-400 level).
The following courses cannot be used to fulfill requirements for the minor:

- SPA 311.
- SPA 312.
- SPA 313.
- SPA 314.
- SPA 315.
- SPA 316.
- SPA 319.
- SPA 394.
- SPA 494.

Prepratory course work may not be used to satisfy minor requirements. Preparatory course work includes:

- SPA 111.
- SPA 201.
- SPA 202 (or test equivalent to placement in Spanish composition).
- SPA 313.
- SPA 315.
- SPA 314 or SPA 316.

Students must complete all course work in the minor with a grade of "C" (2.00) or better. No pass/fail credit may be used for minor requirements.
No course may be used to satisfy more than one of these requirements. Other courses must be approved by an advisor.
Enrollment Requirements: Students wishing to pursue the Spanish minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken. The student should also consult with an academic advisor in the college, division, or department of his or her major to make sure they recognize the minor, and to have the minor added to the program of study.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/spanish
FAB N201
harcs.dept@asu.edu
602-543-4444

## Spanish Minor (LASPAMIN)

## Campus: TEMPE

Description: Students pursuing a minor in Spanish gain an understanding of the language, literature, and cultures of Spanish speaking peoples and regions. There are opportunities to partake in study abroad programs, which can serve to enhance a student's minor experience and education.

Program Requirements: The minor in Spanish requires a minimum of 18 upper-division credit hours. Course substitutions are allowed for heritage and advanced speakers of the language.
Required courses are:
SPA 325 Introduction to Hispanic Literature, HU (3)
SPA 412 Advanced Conversation and Composition, G (3)
Choose two of the following courses (6):
SPA 425 Spanish Literature (to 1700), HU (3)
SPA 426 Spanish Literature (from 1700), HU (3)
SPA 427 Spanish American Literature (to 1880), L (3)
SPA 428 Spanish American Literature (from 1880), L, G (3)
SPA 464 Mexican American Literature, HU (3)
Choose one of the following courses (3):
SPA 471 Civilization of the Spanish Southwest, L/HU, C (3)
SPA 472 Spanish American Civilization, HU, G, H (3
SPA 473 Spanish Civilization, HU/SB, G (3)
Choose one from the following courses (3):
SPA 394 Special Topics (3)
SPA 413 Advanced Spanish Grammar (3)
SPA 429 Mexican Literature (3)
SPA 434 Drama of the Golden Age (3)
SPA 435 Cervantes (3)

Enrollment Requirements: Students who wish to add the minor in Spanish to the degree they are currently pursuing may do so if approved by the major department, school or college. Please contact the School of International Letters and Cultures for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Spanish Minor (LSSPAMIN)

## Campus: DTPHX

Description: The series of courses in this 18-credit-hour minor will help students hone Spanish communication skills and cultural knowledge to serve the needs of the U.S. Latino community in professional settings (i.e., education, social work, health care, criminology, journalism). This program is only offered on the ASU Downtown Phoenix campus and is focused on serving the needs of the students in the College of Public Programs, the College of Nursing and Health Innovation, the Mary Lou Fulton Teachers College, and the Walter Cronkite School of Journalism and Mass Communication. The combination of professionally focused courses and practical experience in this minor will enhance students' professional preparation for employment in positions that require advanced proficiency in Spanish and an in-depth understanding of U.S.-Latino culture.

Program Requirements: Prerequisite: SPA 314/316 or permission of instructor.
SPA 494/401
SPA 494/402
SPA 494/403*
SPA 494/404*
SPA 494/405*
SPA484/SPA 499**
Internship or Independent Study
*Prerequisite: SPA 494 Spanish Oral/Written Communication for the Professions or permission of the instructor.
**Prerequisite: A minimum of 12 credit hours completed in this minor and permission of the instructor.
All courses for this minor will require a minimum grade of " $C$ " (2.00) or better to receive credit toward fulfilling minor requirements.

Enrollment Requirements: For additional admission and registration requirements, please visit the school website.

## Contact Information:

Letters and Sciences, School of
School of Letters \& Sciences
http://sls.asu.edu/lc/spanish/minor.html
UCENT 300
sls@asu.edu
602-496-4000

## Special Events Management Minor (HSEVNMIN)

Campus: DTPHX
Description: The minor in special events management is designed to offer students a solid understanding of special event programming and management. In addition to the two-tiered special event course, which provides both basic and advanced instruction as well as experiential learning opportunities through event production, students will be able to select electives to meet their interests.

The minor allows students enrolled in other undergraduate programs at ASU to broaden their educational experiences. Students from such various disciplines including business, communication and many others find this program a beneficial supplement to their existing program. For more information, access the school's website.

Program Requirements: The minor requires a total of 15 credit hours, six credit hours of required courses and nine credit hours of elective courses. A verification of minor form, available through the school's website is required.
Required Core Courses (6)
PRM 486 Special Events Management (3)
PRM 487 Advanced Special Events Management (3)
Choose three elective courses from the following (9)
NLM 300 Fundraising \& Resource Development (3)
PRM 303 Program Planning (L) (3)
PRM 304 Recreation Planning/Facility Development (3)
PRM 475 Entrepreneurial Recreation and Tourism (3)
TDM 205 Intro to Travel and Tourism (G) (3)
TDM 345 Meeting and Convention Planning (3)
TDM 350 Tourism Marketing (3)
TDM 458 International Tourism (G) (3)

## Standards

- A minimum "C" (2.00) grade required for all classes in the minor.
- A minimum GPA of 2.00 for those pursuing the minor, a major or pre-major, other than Parks and Recreation Management or Tourism Development and Management.
- Fifteen hours of graded classroom coursework (no internship, no independent study).
- Must be a junior to take 400-level courses.
- No double counting of courses for both a major and the minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue the special events management minor should consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Courses taken as part of a university minor may not count toward both the major degree and the minor. Students pursuing a B.S. degree in either parks \& recreation management or tourism development \& management are not eligible to complete this minor.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 500
scrd@asu.edu
602-496-0550

## Speech and Hearing Science Minor (LASHSMIN)

Campus: TEMPE

Description: The Department of Speech and Hearing Science offers an undergraduate minor in speech and hearing science. This is an academic program with emphasis on normal aspects of speech, language and hearing.

Program Requirements: For your information, the required courses are listed below, but students are strongly encouraged to visit an advisor from the Department of Speech and Hearing Science at ASU. The minor in speech and hearing science consists of 24 credit hours with the following classes required:
SHS 105 Introduction to Human Communication Disorders (3)
SHS 250 Introduction to Phonetics (3)
SHS 310 Anatomical and Physiological Bases of Speech (3)
SHS 311 Physical and Physiological Bases of Hearing (3)
Choose one from the following:
SHS 367 Language Science, SB (3)
SHS 375 Speech Science (3)

The remainder of the credits must come from the following courses:
SHS 401 Introduction to Audiology (3)
SHS 402 Modifying Communicative Behavior (3)
SHS 465 Speech and Language Acquisition, SB (3)
SHS 470 Developmental Speech and Language Disorders (3)
SHS 485 Acquired Speech and Language Disorders (3)
SHS 496 Aural Rehabilitation (3)
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.
Please contact the department for more information at http://shs.asu.edu/ug-minor.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Speech and Hearing Science
http://shs.asu.edu/
COOR 2215
shsadvise@asu.edu
480-965-4520

## Statistics Minor (LASTAMIN)

Campus: TEMPE

Description: The minor in statistics is recommended for students majoring in a variety of disciplines such as physics, engineering applications, business, economics, and in the life and social sciences where the need for quantification in the analysis of phenomena is strong.

Program Requirements: The minor in statistics consists of a minimum of 18-20 credit hours. Required courses include:
MAT 271 Calculus with Analytic Geometry II, MA (4) or MAT 266 Calculus for Engineers II (3)
MAT 272 Calculus with Analytic Geometry III, MA (4) or MAT 267 Calculus for Engineers III (3)
MAT 300 Mathematical Structures (3)
STP 420 Introductory Applied Statistics (3)
STP 421 Probability (3)
STP 427 Mathematical Statistics (3) or STP 429 Experimental Statistics CS (3)

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of

## Sustainability Minor (SUSUSMIN)

## Campus: TEMPE

Description: Arizona State University offers a minor in sustainability that introduces students to the problems of sustainability and enables them to understand what it is that determines the sustainability of human institutions, organizations, cultures and technologies in different environments at the local, national and international level.

Program Requirements: SOS 100: Introduction to Sustainability
SOS 300: Advanced Concepts and Integrated Approaches in Sustainability (3)
Two courses (at the 100-200 level) from two of the four sustainability theme areas:

- Coupled human-environment systems.
- Earth systems.
- Human transformation of the earth.
- Social, political and economic treatment of natural resources and environment.

Six credit hours of 300-400 level sustainability electives commensurate with student's major.
Students should consult with their major academic advisor for course selection.
Enrollment Requirements: The sustainability minor is available to students pursuing a major outside of the School of Sustainability. However, this minor is not available to business students pursuing the sustainability concentration. Students who wish to add the minor in sustainability to the degree they are currently pursuing may do so if approved by the department, school or college of their major. Students should contact their academic advisor for more information.

## Contact Information:

Sustainability, School of
School of Sustainability
http://schoolofsustainability.asu.edu/future-students/minor/
GIOS 108
sustainabilityminor@asu.edu
480-727-6963

## Sustainable Tourism Minor (PPTDMSMIN)

Campus: DTPHX

Description: As sustainability expands in popularity as a discipline, students are looking to find ways to better understand how they can apply the principles of sustainability to their specific areas of interest. A minor in sustainable tourism development, within the School of Community Resources and Development, will allow students from any major to learn the basic concepts and theories of tourism development and management and help them to identify the ways in which tourism can contribute to sustainable development locally and globally.
The minor allows students enrolled in other undergraduate programs at ASU to broaden their educational experiences. Students from such various disciplines including sustainability, business, and many others will find this program a beneficial supplement to their existing program. Students may also choose to complete a study abroad program.

Program Requirements: The minor requires a total of 15 credit hours, 12 credit hours of required courses and three credit hours of elective. A verification of minor form is required (see a School of Community Resources and Development advisor).
Required core courses (12)
TDM 205 Introduction to Travel and Tourism
TDM 372 Tourism Planning
TDM 458 International Tourism
TDM 480 Sustainable Tourism
Electives courses (3)

PRM 475 Entrepreneurial Recreation and Tourism
TDM 394/494 Special Topics
TDM 448 Heritage and Cultural Tourism
TDM 481 Sustainable Food Management in Tourism
TDM 482 Sustainable Revenue Management in Tourism

To earn the minor:

- Students must complete all course work in the minor with a minimum grade of "C" (2.00) or higher.
- Must be a junior or higher to take 400-level courses.

Enrollment Requirements: A student wishing to pursue a minor should consult an academic advisor in the unit offering the minor to ensure that the appropriate courses are taken. Students should also consult with an academic advisor in the college or department of his or her major to ensure the college or department of the major allows the recognition of the minor.
Tourism development and management majors are not eligible to earn the minor in sustainable tourism, they should enroll in the sustainable tourism concentration within the major. Courses taken as part of a university minor may not count toward both the degree and the minor.

## Contact Information:

Public Programs, College of
College of Public Programs
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Theatre Minor (FATHEMIN)

## Campus: TEMPE

Description: Students pursuing the theatre minor will study the literatures, histories and basic production practices of theatre while having opportunities to concentrate in an area such as:

- Design and production.
- Directing and performance.
- New work development.
- Theatre and performance studies.
- Theatre for youth.

Program Requirements: The school offers a minor in theatre consisting of 22 credit hours of course work (nine credit hours must be upper division). A grade of "C" (2.00) or higher is required for all courses in the minor. All prerequisites for the minor courses must be met (see course listings). Transfer students may transfer up to nine credit hours toward the minor.
The following courses are required, for a total of 13 credit hours:
FMP 201 Film: The Creative Process I, HU (3)*
THE 100 Introduction to Theatre, HU (3)
THE 322 Theatre History and Culture, HU, H (3)
THP 101 Acting: An Introduction (3)
THP 201 Theatre Production Crew (1)
Also required are nine credit hours of upper division course work related to theatre. Choose from courses with the FMP, THE, or THP prefix. Contact the school for options and course requirements.

* Students considering a minor in film concurrently must complete an additional course in theatre or film to make up for the overlapping FMP 201 course (and THP 101, if taken for the Filmmaking Practices concentration).
Courses ordinarily limited to majors only are available to minors on a second-priority basis; that is, minors may not register for these courses early, but are allowed to register after all majors' needs have been met.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if, 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.

A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Theatre and Film
http://theatrefilm.asu.edu
GHALL 232
herbergeradvising@asu.edu
480-965-5337

## Tourism Development and Management Minor (PPTDMMIN)

Campus: DTPHX

Description: The minor in tourism development and management provides students with the planning and development skills needed to enter the largest industry in the world. Exposure to the businesses of sustainable tourism, heritage tourism and meeting and convention planning will begin to prepare students for successful careers in the fast-growing travel and tourism industry. According to both the World Tourism Organization and the World Travel and Tourism Council, the travel and tourism industry is the largest industry and employer in the world. It is the third largest industry in the United States and ranks as the second largest industry in Arizona.
The minor allows students enrolled in other undergraduate programs at ASU to broaden their educational experiences. Students from various disciplines including business, communication and many others find this program a beneficial supplement to their existing program. Having completed the minor in tourism development and management, a student may also complete a certificate in convention sales and meeting planning. For more information, access the school's website. Students may also choose to participate in a study abroad program.

Program Requirements: The tourism development and management minor requires a total of 15 credit hours, six credit hours of required courses and nine credit hours of elective courses. A verification of minor form, available through the school's website is required.
Required core courses (6)
TDM 205 Introduction to Travel and Tourism (G) (3)
TDM 480 Sustainable Tourism (3)
Choose three elective courses from the following (9)
PRM 486 Special Event Management (3)
TDM 325 Tourism Accommodations (3)
TDM 345 Meeting and Convention Planning (3)
TDM 350 Tourism Marketing (3)
TDM 386 Convention Sales and Planning
TDM 394/494 Special Topics (3)
TDM 415 Tourism Transportation Systems (3)
TDM 448 Heritage and Cultural Tourism (3)
TDM 458 International Tourism (G) (3)
Standards

- A minimum "C" (2.00) grade required for all classes in the minor.
- A minimum GPA of 2.00 for those pursuing the minor, a major or pre-major, other than Tourism Development and

Management.

- Fifteen hours of graded classroom coursework (no internship, no independent study).
- Must be a junior to take 400-level courses.
- No double counting of courses for both a major and the minor.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.

A student wishing to pursue the tourism development and management minor should consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor. Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Courses taken as part of a university minor may not count toward both the major degree and the minor. Students pursuing a B.S. in tourism development and management are not eligible to complete this minor.

## Contact Information:

Public Programs, College of
College of Public Programs
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Transborder Chicana/o and Latina/o Studies Minor (LACCSMIN)

Campus: Tempe
Description: The School of Transborder Studies offers an interdisciplinary degree program whose central mission is to provide a value-added environment that increases the direct participation of Chicana/o and Latina/o populations in the formation of human and capital development.
The program offers students a fundamental understanding of the many dimensions of transnational and transborder processes. These include giving students the knowledge necessary to understand the manner in which Chicana/o, Mexican and Latina/o populations are influenced by and also negotiate political, social, cultural and linguistic borders of multiple sorts.
An equally important dimension is the preparation of students to effectively function in transnational and transborder contexts and processes. Graduates will be able to traverse political borders because capital expansion is practically unlimited in time and space. Students gain skill at developing literary, policy and applied projects that benefit their communities and regions. The department's intellectual mission embraces both material, cultural and applied approaches to the study of transborder and transnational phenomena.

Program Requirements: The transborder Chicana/o and Latina/o studies minor requires 18 credit hours of TCL course work. Core Requirements
TCL 201 Transborder Society and Culture of Mexican Origin and Latina/o Populations I (3) or TCL 202 Transborder Society and Culture of Mexican Origin and Latina/o Populations II (3)
TCL 332 Mexican American History Since 1900 (3) or TCL 331 Mexican American History to 1900 (3)
It is recommended that students completing TCL 201 take TCL 332, and those completing TCL 202 take TCL 331.
Students must take the remaining 12 credit hours in upper-division TCL courses in concentrations of their choice.
Enrollment Requirements: Students who wish to pursue a minor in Transborder Chicana/o and Latina/o studies may do so with the School of Transborder Studies. An ASU student who is pursuing a degree at any ASU campus may elect to add a minor offered at any other ASU campus.
Please contact the school for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Transborder Studies
http://sts.asu.edu/front
COOR 6635
tcls.info@asu.edu
480-965-5091

## Urban and Metropolitan Studies Minor (PPURBMIN)

Campus: DTPHX

Description: The minor in urban and metropolitan studies offers students interested in the urban environment the opportunity to explore the wide variety of issues that influence the quality of life in urban communities. Students are encouraged to learn about cities as historical, social, cultural, economic and political phenomena in order to gain a strong understanding of the complex relationships that contribute to the problems and opportunities of urban living. As the population in the state's urban areas continues to grow, so will the demand for leaders who are skilled in new and innovative ways with which to address the challenges
such growth generates. The program allows students enrolled in other undergraduate programs at ASU to broaden their educational experiences. Students from such various disciplines including planning, business, political science, nonprofit management and leadership, communication, social work, geography and many others might find this program a beneficial supplement to their existing program.

## Program Requirements:

- Fifteen hours of course work with a "C" (2.00 on a scale of 4.00) or better in each course.
- Nine hours of upper-division course work from the approved list.
- Twelve hours of residence credit at ASU.

Eligibility to pursue the minor requires a major or pre-major other than urban and metropolitan studies.
Required Courses
URB 300 Urban and Metropolitan Studies (3)
URB 305 Urban Governance (3)
Core Courses (choose two of the following):
URB 220 Introduction to Urban America (3)
URB 240 Urban Policy (3)
URB 301 Urban Research (3)
URB 302 Urban Theory (3)
URB 410 Urban Leadership and Collaborative Skills (3)
Urban Electives (select a combination of the following)
Related Urban Topics and other approved courses (see below) (3)
Students will be able to choose from a variety of related urban topics classes offered by the School of Public Affairs. Possible topics include:

- Community building and development.
- Comparative urbanism.
- Computer applications.
- Leadership and change.
- Leadership and communication.
- Policy analysis and evaluation.
- Political economy.
- Poverty and social welfare policy.
- Regionalism.
- Urban economics.

In addition, students can choose related courses offered by the School of Public Affairs or other departments.

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Public Programs, College of
College of Public Programs
http://spa.asu.edu
UCENT 400
spa@asu.edu
602-496-0450

Urban Planning Minor (ARPUPMIN)

Description: The planning minor introduces students to the field of urban planning. Students can select courses that include:

- Administration.
- Comprehensive planning.
- Computer and analytical methods.
- Planning law.
- Public-policy formulation.
- Site planning.
- Socioeconomic and environmental analysis.
- Urban design.

Many students continue to specialize in planning at the graduate level. Students in planning are exposed to the theories, methods and practices of the profession.

Program Requirements: A minimum of 18 credit hours are required for the minor, 12 of which must be from 300 or 400 level courses.
Required Course: PUP 301 Introduction to Urban Planning.
The remaining 15 credit hours (nine of which must be from 300- or 400-level courses) must be chosen from the following courses:
PUP 100 Introduction to Environmental Design, HU, G, H (3)
PUP 190 Sustainable Cities, HU/SB, G (3)
PUP 200 The Planned Environment, HU, H (3)
PUP 363 History of Planning (3)
PUP 412 History of the City (3)
PUP 425 Urban Housing Analysis (3)
PUP 430 Transportation Planning and the Environment (3)
PUP 432 Planning and Development Control Law (3)
PUP 442 Environmental Planning (3)
PUP 444 Preservation Planning (3)
PUP 445 Women and Environments, C (3)
PUP 475 Environmental Impact Assessment (3)
PUP 485 International Field Studies in Planning, G (3)
The minor is open to students of all majors.
Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college, school and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2 ) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college, school or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college, school or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the school for more information:
http://geoplan.asu.edu/undergraduate-studies.

## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/undergraduate-studies
COOR 5673
geoplan@asu.edu
480-965-7533

## Wellness Foundations Minor (ECEXWMIN)

Campus: DTPHX

Description: The Department of Exercise and Wellness offers this minor program to any ASU student interested in learning about health and wellness. Students will develop a greater understanding of wellness behaviors, healthy lifestyles and disease prevention.

Program Requirements: The minor in wellness foundations consists of 18 credit hours. The minor requires that students complete the following courses with a grade of "C" (2.00 on a scale of 4.00) or higher:
EXW 300 Foundations of Exercise and Wellness (3)
EXW 325 Fitness for Life (3)
EXW 342 Health Behavior Change (3)
EXW 450 Cultural and Social Issues in Exercise and Wellness (3)
EXW electives: six credit hours must be selected from the approved list of electives available in the Department of Exercise and Wellness (6)

Enrollment Requirements: Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if 1) the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 2 ) the college (and, in certain colleges, the department) of the student's major allows the official recognition of the minor.
A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Inappropriate combinations include (but are not limited to) ones in which an excessive number of courses in the minor are simultaneously being used to fulfill requirements of the student's major. Please contact the department for more information.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/wellness/undergraduate/index.htm
EAW 109
healthpromotion@asu.edu
480-727-1945

## Women and Gender Studies Minor (LAWSTMIN)

Campus: TEMPE
Description: The minor in women and gender studies provides students with an intensive interdisciplinary liberal arts education that enables them to write well, think critically and analyze problems effectively. Students take a variety of courses, including a capstone seminar requiring original research and writing and an internship that helps them prepare for life after college. Original undergraduate research is encouraged, and some courses involve students in studying community problems and formulating policy solutions.

Program Requirements: The women and gender studies minor consists of 18 credit hours, 12 of which must be in the upper division. Students take one of the following courses:
WST 100 Women and Society, SB, C (3)
WST 300 Women in Contemporary Society, SB, C (3)
Students choose one from the following courses:
WST 377 History of American Feminist Thought, C (3)
WST 378 Global Feminist Theory, L, C, G (3)
WST 380 Gender, Race and Class, SB, C (3)
Twelve additional credit hours of approved women and gender studies courses must be taken after consultation with the women and gender studies advisor. Students pursuing a minor must register at least one semester before graduation and are encouraged to meet with the women and gender studies advisor early in their course of studies.

Enrollment Requirements: Students who wish to pursue a minor in women and gender studies may do so with the permission of the department, school or college of their major as well as the advisor in the School of Social Transformation. An ASU student who is pursuing a degree at any ASU campus may elect to add a minor offered at any other ASU campus.
Please contact the School of Social Transformation for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://wgs.asu.edu/
WHALL 205
wgs.asutempe@asu.edu
480-965-2358

## Women's Studies Minor (ASWSTMIN)

## Campus: WEST

Description: The minor in women's studies, within the New College of Interdisciplinary Arts and Sciences, is an interdisciplinary program emphasizing intersectional approaches to the study of gender, race, class, ethnicity and sexuality in national and transnational contexts.

Program Requirements: The women's studies minor consists of 18 credit hours of course work, of which 15 credit hours must be upper division (300-400 level).
Core requirements (9 credit hours):
WST 100 Women, Gender and Society, SB, C (3) or WST 300 Women and Gender in Contemporary Society, SB, C (3)
WST 380 Race, Gender, and Class, SB, C (3)
WST 498 PS: Theory and Methods in Women and Gender Studies, L (3)
WST elective course work (9 credit hours).

Enrollment Requirements: Students wishing to pursue the women's studies minor should consult an academic advisor in the unit offering that minor to ensure that the appropriate set of courses is taken. The student should also consult with an academic advisor in the college, division, or department of his or her major to make sure they recognize the minor, and to have the minor added to the program of study.
Note: Certain major and minor combinations may be deemed inappropriate either by the college or department of the major or minor. Please contact the division for more information. The Academic Affairs Manual (ACD 305-12) regulates undergraduate academic minors and expressly forbids double counting of courses between majors and minors

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/minors/womenstudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Youth Services Leadership Minor (HSYSLMIN) <br> Campus: DTPHX

Description: The minor in youth services leadership is designed to explore the area of youth leadership from the perspective of those who work face-to-face with youth in a variety of settings. The minor allows students enrolled in a variety of undergraduate programs at ASU to broaden their knowledge of youth services. Students from programs such as education, nursing, social work, criminal justice and others may find this program a beneficial supplement to their existing program.

Program Requirements: The minor requires a total of 15 credit hours, nine credit hours of required courses and six credit hours of elective courses. A verification of minor form, available through the school's website.
Required Core Courses (9)
PRM 303 Program Planning (3)
PRM 394 ST: Recreation and Leisure Services for Youth Development (3)
PRM 454 Human Services for At-Risk Youth (3)

Choose two elective courses from the following (6)
CRJ 340 Juvenile Justice (3)
CRJ 441 Prevention of Crime and Delinquent Behavior (3)

CRJ 462 Gangs (3)
IAP 331 Performance, Acting, and the Individual (3)
IAP 347 Movement in Education (3)
PRM 302 Inclusive Communities (3)
PRM/NLM 451 Grant Writing (3)
PRM 484 Senior Internship for Non-majors (3)
PRM 403 Leadership and Professional Development (3)
PRM 463 Senior Internship (3)
SOC 340 Sociology of Deviant Behavior SB (3)
SPE 222 Orientation to Education in Exceptional Children SB (3)

Enrollment Requirements: A student wishing to pursue the minor in youth services leadership should consult an academic advisor in the unit offering the minor to ensure that the appropriate courses are taken. Student should also consult with an academic advisor in the college or department of his or her major to make sure the college of department of the major allows the recognition of the minor.
Courses taken as part of a university minor may not count toward both the major degree and the minor.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu/
UCENT 550
scrd@asu.edu
602-496-0550

## Undergraduate Programs

## Undergraduate Certificates (Program Descriptions and Requirements)

## African and American Studies Certificate (LAAFRCERT)

Campus: TEMPE

Description: The African and African American Studies Program offers an interdisciplinary examination of the many ways in which African and African-descended peoples have created robust lives for themselves and, in turn, contributed to the creation of the modern world.
The program's mission is advanced by its core undergraduate curriculum that examines the culture, arts, history, politics, economics and current status of African Americans, Africans and the African Diaspora everywhere, especially in the Caribbean, Central America and South America.
The curriculum combines a research-based understanding of the humanities, social and behavioral sciences and the arts with practical applications (internships, community/civic engagement and research projects) to prepare students for lifelong learning, advanced study in a variety of fields, and successful careers and productive public service in an increasingly diverse society, especially in Arizona.

Program Requirements: Students will be required to complete 24 credit hours. Six credits will be a prescribed core and the remaining 18 elective hours will be selected from any of the AAAS prefixes (AFH, AFR, AFS).
Required Core Course: AFS 200 Introduction to Africa and African Diaspora Studies (3)
Elective Core Course: choose one of the following four courses.
AFH 300 Precolonial Africa (3)
AFH 305 Global History of the Trans-Atlantic Slave Trade (3)
AFS 301 Race and Racism in Africa/African Diaspora (3)
AFS 302 History of Black Women (3)

## Elective courses

The remaining 18 credit hours will be completed by selecting courses not taken to fulfill the 6 core credit hours and will be selected from any of the unit prefixes (AFH, AFR, AFS). At least 18 of the 24 credit hours must be upper division courses ( 300 or higher). All courses must have a " $C$ " (2.00) grade or higher. No course may be used to satisfy more than one requirement in the undergraduate certificate.

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. Please contact the School of Social Transformation for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://aaas.clas.asu.edu/
WILSN 140
aframstu@asu.edu
480-965-4399

## Arabic Studies Certificate (LAARBCERT)

Campus: TEMPE

Description: The certificate in Arabic studies provides students with skills that will enable and qualify them to communicate effectively in Arabic in the four areas of language acquisition:

- Listening.
- Reading.
- Speaking.
- Writing.

Simultaneously, students gain a broad knowledge and understanding of the culture, literature and traditions of the vast Arabicspeaking world.

The certificate provides critically needed educational and cultural diversity that will enrich students' undergraduate experience and prepare them for life as employees and employers.
Graduate students in the liberal arts, social sciences and humanities seeking academic or professional careers in any of the three disciplines or thematic concentrations are also expected to be attracted to this certificate because of the added advantage the program gives them in the job market given the demonstrably high need for graduates with Arabic knowledge.

Program Requirements: ASU students admitted to a degree program in any field of study would be eligible for the Arabic studies certificate program. In addition to the course work and examinations required in the major field of interest, students are responsible for fulfilling the minimum requirement of 18 hours (at least12 upper-division)to earn the Arabic studies certificate. These hours can be chosen in consultation with the certificate coordinator. A minimum grade of " $C$ " (2.00) or higher is required in each course.

Enrollment Requirements: Students must first be accepted into an appropriate degree program at ASU and will then apply directly to the director of the Arabic studies certificate in the School of International Letters and Cultures for admission into the certificate program.
The application will consist of:

- Name.
- Address.
- Phone number.
- E-mail address.
- Student ID number.
- Major.
- Year in college.
- Anticipated graduation date.
- Name of their major academic advisor.

Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/certificates
LL 440
silc@asu.edu
480-965-6281

## Asian Pacific American Studies Certificate (LAAPACERT)

## Campus: TEMPE

Description: Asian Pacific American studies is an interdisciplinary undergraduate curriculum in the School of Social Transformation that addresses the historical and contemporary experiences of Asian Americans and Pacific Islanders, what they have contributed to our society, and the complexity of racial formations in the U.S.
The curriculum is designed to help students of all ethnicities:

- Develop clear written arguments and present their perspectives effectively.
- To learn about Asian American and Pacific Islander experiences and communities in Arizona, nationally, and within a larger global context.
- To prepare students to participate in an increasingly diverse and global U.S. society.
- To think critically.

The certificate program provides students with opportunities to think critically about interethnic cooperation and conflict in the formation of social institutions and communities. The certificate program also encourages students to learn about local Asian American and Pacific Islander communities and organizations through research, courses and community internships.

Program Requirements: Students will be required to complete 18 credit hours for the certificate.Nine hourswill be a prescribed core and the remaining nine elective hours will be selected from any of the courses with an APAS prefix.
Required Core Courses (9)
APA 200 Introduction to Asian Pacific American Studies, HU/SB, C (3)

APA 360 Asian Pacific American Experience, HU/SB, C (3)
APA 484 Internship (3)
Elective Courses (9)
The remainingnine credit hourswill be completedby selecting courses not taken to fulfill the 9 required hours and will be selected from any APAS courses.
APA 210 Introduction to Ethnic Studies in the U.S.
APA 310 Asian Pacific American Arts and Culture
APA 315 Asian Pacific American Literature
APA 330 Asian Pacific American Genders and Sexualities
APA 340 Asian Pacific Americans and Media
APA 345 Asian Pacific Americans and Film
APA 360 Asian Pacific American Experience
Note: one APA 360 course is required for the core; the other sections may be repeated for credit with different topics.

- The Chinese American experience
- TheJapanese American experience
- The Filipina/oAmerican experience
- The KoreanAmerican experience
- The Pacific Islander experience
- The South Asianexperience
- The Southeast Asian experience
- The Multi-Racialexperience
- Asian American psychology

APA 394 Special Topics (may be repeated for credit with a different topic)
APA 450 Asian Pacific American Contemporary Issues
APA 484 Asian Pacific American Community Internship
APA 494 Special Topics (may be repeated for credit with a different topic)
APA 499 Individualized Instruction (1-3 credits; may be repeated for credit)
Other Requirements and Restrictions

- At least 12 of the 18 credit hours must be upper division courses ( 300 or higher).
- All courses for the certificate must have a " $C$ " (2.00) grade or higher.
- A minimum on 9 credit hours must be taken in residency at ASU.
- No course may be used to satisfy more than one requirement in the certificate.

Enrollment Requirements: Students admitted to study at Arizona State University are eligible to pursue the requirements of a certificate. In order to be admitted to the university, complete the Office of Admission online application. Please contact the School of Social Transformation for more information and see http://apas.clas.asu.edu/program/certificate.shtml.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://apas.clas.asu.edu/
WILSN 342
apas@asu.edu
480-965-9711

## Asian Studies Certificate (LAASNCERT)

## Campus: TEMPE

Description: The Asian studies certificate is offered through the Center for Asian Research. It supplements a bachelor's degree, demonstrating knowledge of an Asian language as well as general knowledge of Asian history, art, culture and society. The certificate provides students with official transcript recognition of specialization in Asian Studies related to their major area of study. An earned certificate will appear on student transcripts as an Asian study emphasis.

Program Requirements: The certificate curriculum includes 24 credit hours of course work:

- Fifteen credit hours of upper-division area studies course work in at least three disciplines outside of languages and literature courses (such as anthropology, art, geography, history, political science and religious studies).
- Nine additional credit hours may be some combination of lower- and/or upper-division courses.
- Six hours may be satisfied with language and literature courses limited to 321 and above.

In addition, certificate students must demonstrate proficiency in an Asian language at the intermediate level. The language requirement can be satisfied by completing the 201 and 202 sequence, one year of study abroad at the intermediate level, or satisfactory placement on a proficiency exam. Asian languages include:

- Chinese.
- Hindu/Urdu.
- Indonesian.
- Japanese.
- Korean.
- Thai.
- Vietnamese.

Students pursuing an Asian studies certificate may apply courses in East, South and/or Southeast Asia to meet the certificate requirements. A minimum grade of " $C$ " (2.00) is required for each course that is used to fulfill the certificate requirements.

Enrollment Requirements: There are no specific admission requirements other than a student's desire to learn about Asia. Please contact the department for more information and see http://www.asu.edu/clas/asian/certificate_undergrad.html. All advising for the certificate is done through the advising office in the School for International Letters and Cultures. Please contact silcadvising@asu.edu to schedule an appointment with an advisor.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://www.asu.edu/clas/asian/
COOR
car@asu.edu
480-965-7184

## Automotive Entrepreneurs and Leaders Certificate (BADMGCERT)

## Campus: TEMPE

Description: Students gain the knowledge and basic skills necessary to enter a career in automotive management both at the corporate level and at retail dealerships. These skills include:

- Integrating the functions of business through an in-depth examination of the largest single industry in the U.S.
- Managing customer service operations and marketing efforts.
- Managing financing and cash flow.
- Understanding consumers and human behavior.
- Understanding the impact of sustainability on product development and demand chains.

Students acquire the expertise needed to become a successful entrepreneur in any industry while focusing on personal leadership skills. Course work is focused on:

- Business management and operations.
- Current issues and trends in the automotive industry.
- The role of the sustainability revolution in the automotive industry.

Program Requirements: Students must complete a bachelor's degree from the W. P. Carey School of Business or from an approved business or economics degree program at another college or university and complete a minimum of 15 credit hours ( 12 of which must be upper division) of approved course work, including the following six hours:
MGT 494 Special Topics: Sustainable Dealership Management (3)
MGT 494 Special Topics: Business Model Elements for Auto Dealerships(3)

To complete the certificate, students select at least nine additional hours of business courses, including a three-credit-hour internship or independent study project. Courses must be approved in advance by the faculty director for the certificate program. The student must complete the 15 credit hours of course work with grades of " C " ( 2.00 on a scale of 4.00 ) or higher.

Enrollment Requirements: Courses are limited to upper division business students who have completed at least 56 credits toward a business or economics degree. Space in the certificate for Automotive Entrepreneurs and Leaders Program is limited and based on available resources. Students must submit an application. Admission criteria include GPA, career goals and application materials. Please contact the department for more information.

## Contact Information:

Business, W. P. Carey School of
Dean, W.P. Carey School of Business
https://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Child Life Certificate (LACHLFCERT)

Campus: DTPHX, TEMPE

Description: Child life specialists are experts in child development who promote effective coping among children who face challenges related to health care and hospitalization. This cross-disciplinary program offered through the School of Community Resources and Development and the School of Social and Family Dynamics is designed to assist students to prepare for the national qualifying child life exam.
A portion of the national certification exam eligibility requirements, as outlined by the Child Life Council, are met by obtaining this certificate.

Program Requirements: The certificate requires a total of 21 credit hours. Courses taken as part of a university major may count towards both that degree and the certificate. To earn the certificate, students must complete all course work in the certificate with a minimum grade of " B " (3.00) or better.
An application to the program is required.
Required courses (21)

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CDE 337 Early Childhood Intervention (3)
CDE 450 Child Dysfunction in the Family (3)
PRM 364 Foundation in Therapeutic Recreation (3)
PRM 384 Child Life Practicum (3)
PRM 406 Program Design and Evaluation (3)
PRM 455 Play in Child Life (3)
PRM 460 Assessment and Documentation (3)
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## Standards

- A minimum "B" (3.00) grade required for all classes in the certificate.
- A minimum GPA of 3.00 for those pursuing the certificate.
- Eighteen hours of graded classroom course work (no internship, no independent study).
- Must be a junior to take 400-level courses.

Enrollment Requirements: - A minimum cumulative GPA of 3.00 is required to enroll in the certificate.

- Students wishing to pursue the child life certificate must complete two prerequisites before applying for the program: CDE 232 Human Development (3) with a grade of "B" (3.00) or higher; CDE 338 Child Development Practicum (or comparable experience working with children, as determined by certificate directors of admission).
- For additional information and application, students should consult with an academic advisor in either the School of Community Resources and Development or the School of Social and Family Dynamics.


## Contact Information:

Liberal Arts and Sciences, College of
School of Community Resources and Development, School of Social and Family Dynamics
http://ssfd.clas.asu.edu/
SS 144
email@ssfd.info
480-965-6978

## Child Nutrition Certificate (ECNTRCERC)

Campus: DTPHX, POLY
Description: This certificate program is directed toward current degree-seeking students, postbaccalaureate students and nondegree-seeking students who are seeking eligibility for the school nutrition specialist (SNS) credential offered by the School Nutrition Association.

Program Requirements: The certificate requires that students take the following courses, for a total of 31 credit hours:
BUA 381 Small Business Accounting and Finance (3)
EXW 100 or 325 Intro to Wellness or Fit for Life (3)
NTR 142 Applied Food Principles (3)
NTR 343 Food Service Purchasing (3)
NTR 344 Nutrition Services Management (3)
NTR 345 Development of Healthy Cuisines (3)
NTR 401 Field Experience (3)
NTR 445 Management of Food Service Systems (3)
NTR 448 Community Nutrition (3)
NTR 450 Nutrition in the Lifecycle I (3)
NTR 498 Seminar in Child Nutrition Programs (1)
Enrollment Requirements: To enroll in the certificate program, the applicant must be admitted to ASU as a degree-seeking or nondegree-seeking student in the Department of Nutrition. The curriculum committee of the Department of Nutrition will approve applications to the certificate program.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
HSC 1386
healthpromotion@asu.edu
480-727-1728

## Civic Education Certificate (LACVECERT)

Campus: TEMPE

Description: The civic education certificate is designed to contribute to the preparation of undergraduate students for careers in:

- Primary and secondary education (where the teaching of government and civics may be involved).
- Careers or voluntary participation in politics, public service, civic and social movements.
- Further education in law, journalism, business, history, sociology, political science and other fields where an understanding of questions of citizenship, leadership, community, democracy, public responsibility and ethics is crucial.

Program Requirements: The certificate does not substitute for degree requirements in any subject, including political science; rather, as a complement to the student's chosen major, the certificate program is intended to guide students to a variety of courses whose successful completion indicates their special accomplishment in the area of civic education. Students majoring in any subject at the university may be awarded the civic education certificate upon completion of the following 15 credit hours of political science courses:
POS 210 Political Ideologies, SB (3)
POS 346 Problems of Democracy, HU (3)
POS 442 American Political Thought, HU (3)
Choose one from the courses below:
POS 340 History of Political Philosophy I, HU, H (3)
POS 341 History of Political Philosophy II, HU, H (3)

POS 443 Topics in Contemporary Political Theory, HU (3)
Choose one from the courses below:
POS 110 Government and Politics, SB (3)
POS 150 Comparative Government, SB, G (3)
POS 160 Global Politics, SB, G (3)
POS 270 American Legal System, SB (3)
POS 300 Contemporary Controversies in Global Politics, SB, G (3)
POS 313 The Congress, SB (3)
POS 314 The American Presidency, SB (3)
POS 315 The Supreme Court, SB (3)
POS 330 Contemporary Controversies in Domestic Politics, SB (3)
POS 332 American Political Parties, SB (3)
POS 333 Interest Groups, SB (3)
POS 370 Law and Society, SB (3)
POS 417 The Arizona Political System, SB (3)
POS 435 Women and Politics, SB, C (3)
POS 439 Minority Group Politics in America, SB, C (3)
Certificate students must have a minimum GPA of 2.00; only courses in which students have a grade of " $C$ " (2.00) or higher count toward the certificate.

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact the School of Government, Politics, and Global Studies for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Politics and Global Studies
http://spgs.clas.asu.edu
COOR 6797
480-965-6551

## Classical Studies Certificate (LACLGCERT)

Campus: TEMPE
Description: The classical studies program offers students a wide variety of opportunities to study the language, literature and culture of the ancient Greeks and Romans. The School of International Cultures and Letters offer a certificate in classical studies for those students interested in pursuing a classical education in conjunction with another major or as part of their general studies.

Program Requirements: Students admitted to undergraduate degree programs in any field are eligible for the classical studies certificate program. In addition to the course work and examinations required in the student's major, the student is responsible for fulfilling the following minimum requirements:

- Five semesters of ancient Greek (17 credit hours; GRK 301 and 302 may be repeated for credit) or Latin (19 credit hours) language and literature instruction.
- Foursemesters (12 credit hours) in courses related to classical studies (to be approved by coordinator of the certificate).
- Two of these courses (6 credit hours) must be above the 300 level.

A minimum grade of " $C$ " $(2.00)$ is required in each course leading to the certificate.
Enrollment Requirements: Students interested in the classical studies certificate program need tocontact the coordinator of the certificatebefore being accepted into the program. Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of School of International Letters and Cultures http://silc.asu.edu/undergraduate/certificates
LL 440
silc@asu.edu

## Computer Gaming Certificate (ESSCICERT)

## Campus: TEMPE

Description: The computer gaming certificate is designed to provide a game development skill set that the student can apply to domain specific applications in the student's major. Theskill set includes:

- Architecture of game engines.
- Art design and computer graphics for gaming.
- Game software development.

In this certificate program, students will learn to apply gaming technology to not only the rapidly-growing video game industry, but to business, medicine, geography, biotechnology and education. Examples of projects include creating a game architecture to help patients with:

- Building a game that teaches linear algebra by incorporating trigonometric rules into the game design.
- Creating a game that teaches correct sentence construction to early English learners.
- Creating an interactive virtual world for corporate training.
- Designing a game platform incorporating geographic information systems.
- Inventing a surgical simulation to educate medical students.
- Physical therapy.

Program Requirements: Students will complete nine credit hours of core courses including a final capstone project and nine credit hours of track courses.

## Core Courses

CPI 111 Game Development I
CPI 211 Game Development II
CPI 441 Gaming Capstone

Track Courses (choose three courses)

CIS 394 Project Management
CPI 311 Game Engine Development
CPI 321 Fundamentals of Game Art
CPI 411 Graphics for Games
CPI 412 Cognitive Systems and Intelligent Agents
CPI 421 Modeling and Texturing
CPI 422 3D Animation and Rigging
DCI 451 Design Research and Educational Gaming
EDT 329 Games, Simulations and Virtual Environments
RDG 440 Computer Gaming Learning and Literacy

Programming courses focus on how game engines work and writing software. Art courses teach the visual aspects of game design. In education courses, students will apply game design skills to achieve educational goals.

Enrollment Requirements: The computer gaming certificate is open to any student admitted to an undergraduate degree program at ASU and in good academic standing. This certificate can also be used by B.I.S. students as part of their degree program.
All students are eligible to take CPI 111.Students that want to continue in the certificate classes must be approved to enroll in the computer gaming certificate by completing the Undergraduate Certificate formfrom the Registrar's Web site and submitting it to the School of Computing, Informatics and Decision Systems Engineering (SCIDSE) Academic Advising Center located in the Brickyard Building, room 208. B.I.S. students can contact their B.I.S. advisor to add the computer gaming concentration to their degree program.

## Contact Information:

Engineering, Ira A. Fulton Schools of Computing and Informatics Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Convention Sales and Meeting Planning Certificate (PPTDMCERT)

Campus: DTPHX
Description: The U.S. meetings, conventions and exhibitions industry generates more than $\$ 120$ billion a year, supporting nearly two million jobs. Students can explore this exciting growth industry with the convention sales and meeting planning certificate. The demand for professionals is strong and we provide an excellent foundation for enhancing career opportunities nationally and regionally. Phoenix is a major convention and meeting destination.
The $\$ 600$ million investment in the Phoenix Convention Center expansion, new hotel and other visitor-related product development, as well as corporate headquarters that continue to relocate to the greater Phoenix area have created the need for qualified professionals to service conventions and meetings. The certificate, which has been endorsed by the Greater Phoenix Convention and Visitors Bureau and the Arizona Sunbelt Chapter of Meeting Professionals International, will enhance a graduate's career opportunities as a tourism professional.

Program Requirements: The certificate requires a total of15 credit hours,four required core courses (12)and one elective course (3). Courses taken as part of a university major may count towards both that degree and the certificate. Requirements can be met online. All core classes and some elective classes are taught online at least once a year. To earn the certificate, students must complete all course work in the certificate with a minimum grade of "C" or better. An application to the program is required. Required core courses (12)

TDM 205 Introduction to Travel and Tourism, G (3)
TDM 345 Meeting and Convention Planning (3), prerequisite: TDM 205, grade of "C" (2.00) or better
TDM 350 Tourism Marketing (3), (prerequisites: must have completed REC 305 or TDM 205 with a grade of "C" (2.00 on a 4.00 scale) or higher or be currently enrolled; must have completed 45 hours)
TDM 386 Convention Management and Sales (3)
Choose one elective course(3)
PRM 486 Special Events Management (3)
TDM 325 Tourism Accommodations
TDM 458 International Tourism

## Standards

- A minimum "C" (2.00) grade required for all classes in the certificate.
- A minimum GPA of 2.00 for those pursuing the certificate.
- Fifteen hours of graded classroom coursework (no internship, no independent study).
- Must be a junior to take 400-level courses.

Enrollment Requirements: Students wishing to pursue the convention sales and meeting planning certificate should consult with an academic advisor in the School of Community Resources and Development. For additional information, please visit the college website.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Creative City Certificate (PPURBCERC)

Campus: DTPHX

Description: The creative city certificate prepares students to engage effectively in revitalizing cities and communities by tapping their inherent potential for cultural innovation, placemaking and social/economic entrepreneurship. Exploring best practices globally, students develop asset-based proposals for specific locales including implementation plans. The creative city certificate adds value to other majors as well as work/life experience for students aspiring to assume leadership roles in improving quality of life, specifically by enhancing quality of place.
Cities are centers of human creativity and cultural innovation. They both attract and breed these. Such creativity and innovation are apparent in the vitality of the arts, as well as that of businesses (both large and small), research (basic and applied) and the everyday life unique to any given locale. These are the ingredients that make our places sustainable - economically, socially and environmentally - by endowing a "sense of place" along with a "sense of community."
This certificate also serves professionals in the community working in the areas of:

- Community development.
- Land-use law.
- Parks and recreation.
- Philanthrop.
- Planning.
- Public art.
- Urban governance and others.

Flexible class times and locations make the certificate a viable option for those unable to attend classes during the day.
Program Requirements: The five-course sequence comprising the certificate will enable students to build upon their own strengths in order to help cities and communities creatively build upon their capacities. The creative city certificate consists of a maximum of 15 credit hours of course work. All courses must be taken at ASU. Required courses and electives are shown below.
Required core courses (6)
URB 405 Citizen Engagement and Community Building (3)
URB 406 Public Administration and Community Development (3)
Sample certificate electives (9)
URB 410 Urban Leadership and Collaborative Skills (3)
GRA 401 Creating Environments, this course develops individual creativity to apply in collaborative settings to urban and environmental issues (3)

URB 484 Internship (3)
Other electives
Sustainable Communities (PRM 301, NLM 301, TDM 301)
Urban Research (URB 301)
Urban Theory (URB 302)
Urban and Metropolitan Studies (URB 300)
Urban Governance (URB 305)
Senior Professional Seminar (URB 400)
Public Leadership (PAF 420)
Introduction to Urban America (URB 220)
Urban Policy (URB 240)
Heritage and Cultural Tourism (TDM 448)
Leisure and the Quality of Life (PRM 120)
Introduction to Nonprofit Organizations (NLM 220)
Fund Raising and Resource Development (NLM 300)
Assessment and Evaluation of Community Services (NLM 402, TDM 402)
Inclusive Community Development (PRD 302, NLM 302, TDM 302)- community resources and development majors only
Voluntary Action and Community Leadership (NLM 160)
Community Resources and Services (REC 210)
Living the Arts Downtown (URB 494)
Contemporary Issues Civic Enterprise (PAF 494, APA 450)

Note: Some courses may require prerequisites or may be for majors only. Other courses may be substituted with approval from School of Public Affairs.

Enrollment Requirements: The creative city certificate is available to all admitted undergraduate students (regular or nondegree) at ASU. Nondegree students are required to apply to ASU (as a nondegree student) and once admitted, contact the School of Public Affairs to be admitted into the certificate program. Students may begin taking courses before they formally apply for the certificate; however, they should apply for admission as soon as possible.

## Contact Information:

Public Programs, College of
School of Community Resources and Development, School of Public Affairs
http://spa.asu.edu/new/undergrad/creative_city.htm
UCENT 400
spa@asu.edu
602-496-0450

## Dietetics Certificate (ECNTRCERD)

Campus: DTPHX, POLY

Description: This certificate program is directed toward postbaccalaureate students who are seeking eligibility for registration as a dietitian. The certificate provides students with documentation that they have completed a limited curriculum and achieved a standardized level of competence in dietetics. The certificate requires 79 hours of specific course work. The program will be administered by the Department of Nutrition curriculum committee. Completion of the certificate will enable students to receive a verification statement from the Commission on Accreditation for Dietetics Education's Didactic Program in Dietetics, which will allow students to apply to dietetic internship programs to obtain the registered dietitian (R.D.) credential.

Program Requirements: Required course work includes:
BCH 361 and 367 Biochemistry with lab (or equivalent)
BIO 201 Human Anatomy/Physiology I with lab (or equivalent)
BIO 202 Human Anatomy/Physiology II with lab (or equivalent)
CHM 113 General Chemistry I with lab (or equivalent)
CHM 116 General Chemistry II with lab (or equivalent)
CHM 231 and 235 Organic Chemistry with lab (or equivalent)
ENG 301 Technical or Professional Writing (or equivalent)
MIC 205 and 206 Microbiology with lab (or equivalent)
NTR 142 Applied Food Principles
NTR 241 Human Nutrition
NTR 340 Applications in Human Nutrition
NTR 341 Introduction to Planning Therapeutic Diets
NTR 343 Food Service Purchasing
NTR 344 Nutrition Services Management
NTR 350 Nutrition Counseling
NTR 440 Advanced Human Nutrition I (Micronutrients)
NTR 441 Advanced Human Nutrition II (Macronutrients)
NTR 444 Medical Nutrition Therapy
NTR 445 Management of Food Service Systems
NTR 446 Human Nutrition Assessment Lecture/Lab
NTR 448 Community Nutrition
PGS 101 Introductory Psychology (or equivalent)
SOC 101 Introductory Sociology (or equivalent)
Statistics
Enrollment Requirements: To enroll in the certificate program, the applicant must be admitted to ASU as a nondegree graduate student or as an undergraduate student in the Department of Nutrition. The applicant must have already completed a bachelor's degree not specific to dietetics. The curriculum committee of the Department of Nutrition will approve applications to the certification program. The department director will verify that the program of study has been successfully completed and that all grade requirements have been satisfied. Notification will then be sent to the graduation office to post the certificate on the student's transcript.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
HSC 1386
healthpromotion@asu.edu
480-727-1728

## Digital Culture Certificate (HIDGCCERT)

Campus: TEMPE
Description: The digital culture certificate program in the Herberger Institute for Design and the Arts focuses on the creative exploration of how new media is influencing our culture, or rather, the way we live, learn, create and communicate. The digital culture certificate will allow students to enhance their program of study with integrated, interdisciplinary training in creative processes and technical skills in new media with cultural applications. The digital culture curriculum is outcomes-based rather than course sequence based. The curriculum uses an innovative proficiency-based network to connect courses across academic disciplines, instead of traditional methods such as course prerequisites. Proficiencies in the curriculum identify common generalized learning outcomes across disciplines participating in the initiative.

Program Requirements: The digital culture certificate requires 18 credit hours (12 upper division) in four areas:Digital Culture Core (9)Media Arts and Design (3)Media Engineering (3)Capstone Culminating Project (3)A minimum grade of a "C" (2.00) and an overall GPA of 3.00 is required in all classes in the certificate. Courses in the certificate may not be used as part of a major. All upper division certificate course work must be taken at ASU.Generous substitution rules allow for course flexibility. Students receiving the digital culture certificate can petition to substitute up to six credit hours. Three credit hours can come from any course related to digital culture and may be achieved through courses offered by any unit of ASU including the Polytechnic, Downtown, West (IAP), and the FMS program on the Tempe campus. Courses may include any on the related subject/substitution list (below) or courses with comparable content. The other three substitution hours can be achieved through one of the following two paths:

- The three-hour media arts and design course requirement may be substituted with a three-hour course in the digital culture related category.
- The three-hour media engineering requirement may be substituted with a three-hour course in the digital culture related category, or by a related upper-level engineering course offered by one of the collaborating units.

Enrollment Requirements: For current ASU students, there is no special application process for the digital culture certificate. Students add the certificate by meeting with the academic advisor for their major and the digital culture education coordinator to develop the digital culture pathway that best meets the proficiencies for the work they are interested in pursuing. This pathway will be contingent upon the student's academic performance in 100-level course work. For students not currently enrolled at ASU, students must apply and be admitted to ASU in a degree or non-degree program. Students must meet with the digital culture education coordinator before enrolling in the certificate program. The coordinator and student will develop a pathway that best meets the proficiencies for the work he or she is interested in pursuing. The coordinator will review the student's previous academic work to determine which proficiencies the student has completed.Digital culture certificate students will work with the digital culture education coordinator and successfully complete the required sequence of courses and proficiencies for a digital culture certificate. The digital culture education coordinator and the digital culture faculty committee in the Herberger Institute for Design and the Arts will help to craft the best path for the student.

## Contact Information:

Design and the Arts, Herberger Institute for
Arts, Media and Engineering Sch T
http://herbergerinstitute.asu.edu/degrees/digital_culture/minor.php
CDS 101
480-965-4495

## East Asian Studies Certificate (LAEASCERT)

## Campus: TEMPE

Description: The certificate in East Asian studies can supplement a bachelor's degree, demonstrating knowledge of an Asian language as well as knowledge of Asian history, art, culture or society. This certificate helps prepares students for admission to graduate programs in Asian area studies or in an academic discipline with an Asian focus, or for professional programs in
international law or business. Recent Asian studies graduates have gone on to enter medical school, law school, M.B.A. programs or Ph.D. programs. An earned certificate will appear on student transcripts as an East Asian studies emphasis.

Program Requirements: The certificate curriculum includes 24 credit hours of course work:

- Fifteen credit hours of upper-division area studies course work in at least three disciplines outside of languages and literature courses (such as anthropology, art, geography, history, political science and religious studies).
- Nine credit hours may be some combination of lower- and/or upper-division courses (six hours may be satisfied with language and literature courses limited to 321 and above).
- In addition, certificate students must demonstrate proficiency in an Asian language at the intermediate level. The language requirement can be satisfied by one of the following:
- Completing the 201 and 202 sequence
- One year of study abroad at the intermediate level
- Satisfactory placement on a proficiency exam.

Asian languages include:

- Chinese.
- Hindu/Urdu.
- Indonesian.
- Japanese.
- Korean.
- Thai.
- Vietnamese.

Students pursuing an East Asian studies certificate must fulfill the language requirement in either Chinese, Japanese or Korean, and the 15 hours of upper-division course work must be courses with significant focus on East Asia chosen in consultation with the Center for Asian Research advisor.
A minimum grade of " C " (2.00) is required for each course that is used to fulfill the certificate requirements.
Enrollment Requirements: There are no specific admission requirements other than a student's desire to learn about East Asia. Please contact the department for more information and see http://www.asu.edu/clas/asian/certificate_undergrad.html. All advising for this certificate is done through the School for International Letters and Cultures. Please contact silcadvising@asu.edu to schedule an appointment with an advisor.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://www.asu.edu/clas/asian/
COOR
car@asu.edu
480-965-7184

## Economic Justice Certificate (LAECNJCERT) <br> Campus: TEMPE

Description: This certificate focuses on the application of justice principles to different fields of economics, including microeconomics, macroeconomics, labor economics, public finance, development, and international trade and investment, among others.

Students will gain transdisciplinary knowledge of economic justice that will promote the growth of sustainable communities, locally, nationally and globally. Areas of focus include different approaches to economic justice, wealth and poverty, labor movements and unionization, social innovation, legal constructions of labor justice and forms of work discrimination, employment and welfare advocacy and activism.

The course work in this certificate will prepare students to:

- Analyze and develop policies to build local skills.
- Develop the capacity to design, control, manage, and evaluate initiatives aimed at economically revitalizing communities.
- Increase research abilities.
- Lay the groundwork for new approaches to economic justice.

Program Requirements: 18 total credit hours required for the certificate.

- "C" grade or higher required for each course.


## 1. Theories and Foundation in Economic Justice (3 hours)

To provide student with a background in theories and philosophies of economic justice, student will select one of the following courses:

ASB 416: Economic Anthropology
COM 450: Theory and Research in Organizational Communication
ECN 360: Economic Development
JUS 321: Wealth Distribution and Poverty
JUS 323: Justice and Development of the Welfare State
JUS 325: Globalization and Economic Justice

## 2. Economic Justice Praxis (3 hours):

To better understand community, NGOs, government policies and other collective efforts aimed at improving economic conditions through various strategies, including asset building to low income communities, community based micro-finance, economic development, and advocacy and training efforts. Students will select one of the following courses:

AIS 394: Indigenous Nation Building/Com/Econ Development
ASB 328: Rules, Games and Society
JUS 320: Community and Social Justice
JUS 405: Economic Justice
ECN 331: Economics of the European Economic Union
PUP 434: Urban Land Economics
SGS 394: Principles for Economic Development and Globalization
SGS 394: Policies for Economic Development (soon to be SGS 352
SWU 432: Social Policy and Services
SWU 498: Border Families: Community Asset Building

## 3. Interdisciplinary Component (9 hours):

To provide students an opportunity to focus on a particular racial group, nation or region or specific historical event while also providing a broad interdisciplinary framework, students will select three electives. Courses must be taken from both of the substantive areas listed below, and from two or more academic units. Any course listed below may count toward this requirement, as well as other courses as approved by the certificate program director.

AIS 380: Contemporary Issues of American Indian Nations
AIS 494: Readings in Decolonization
APA 394: Asian Pacific Americans and Immigration
APA 394: Inequality and Diversity in Education (soon to be APA 350)
ASB/POS/SGS 447: Citizenship, Nationalism, and Identity
CRJ 305: Women, Crime and Justice
CRJ 306: Race, Ethnicity and Justice
ETH 300: Principles of Ethnic Studies
FAS/AFS 370: Family, Ethnic and Cultural Diversity
HST 325: Immigration \& Ethnicity in the United States
HST 333: African American History to 1865
IAS 305: Work and Identity
JUS 420: Women, Work and Justice
JUS 415: Gender and International Development
JUS 425: Race, Gender and Justice
JUS 438: Human Differences: Dilemmas of Justice
JUS 479: Law and DisputingSOC/FAS 324: Work and the Workplace
SOC 423: Social Class and Stratification
SWU 374: Diversity and Oppression in a Social Work Context

TCL 314: Transborder Regional Immigration and Economy
WST 394: Women, Work and Poverty
National and Global:
AFS 304: Islands of Globalization: Caribbean Politics and Political Economy
ASB/SOC/SBS: 342: Mexico-United States Borderlands
JUS 408: Comparative Development of the Welfare State
JUS 469: Political Deviance and the Law
PHI 309: Social and Political Philosophy
POS: 80: Global Justice
POS 486: International Political Economy
SGS 394: Principles of Economic Development and Globalization SGS 394: Global Markets
SOS 430: Sustainable Economic Development and Social Transformation
TCL 444: The Ethnography of Mexico and the Borderlands

## 4. Experiential Learning Component (3 hours):

A central element of this certificate program will be the linkage of learning and doing; connection theoretical and substantive learning about economic justice with practical knowledge about the workings workings of organizations and institutions seeking to address poverty and the wealth gap. To better connect connect classroom learning with practical experience, students will be required to participate in either a for-credit internship or a Research Experience with Undergraduates (REU) under faculty supervision (honors thesis may substitute). A written component to the internship or REU is required.

Enrollment Requirements: In order to declare this certificate, students must have a minimum of 56 earned credit hours and must first meet with an academic advisor.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://justice.clas.asu.edu/
WHALL 125
480-965-7682

## Entertainment and Technology Certificate (LAFMSUERE)

Campus: TEMPE
Description: The entertainment and technology certificate is for students who have completed a course of study that includes 18 credit hours of entertainment and technology history, theory and convergence. It certifies that the student has had the training to analyze industry changes through time, to identify current industry trends and to develop likely entertainment and technology models and scenarios for the future.

Program Requirements: ASU students admitted to a degree program in any field of study are eligible for the entertainment and technology certificate. In addition to the course work and examinations required in the major field of interest, students are responsible for fulfilling the requirement of 18 credit hours to earn the certificate. The upper-division courses are a three-course sequence and are taken upon completion of three lower-division film and media studies courses. A minimum grade of " C " (2.00) or better is required in each course. Required certificate core courses (18 credit hours) are:
FMS 100 Introduction to Film (3), HU
FMS 110 Introduction to New Media (3), L or HU
FMS 200 Film History (3), (L of HU) and H
FMS 481 Entertainment Technologies (3)
FMS 482 Entertainment Industries (3)
FMS 483 Techno-Entertainment Convergences (3)
FMS Upper division elective

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact the department for more information and see http://film.asu.edu/entertech.

Liberal Arts and Sciences, College of
Department of English
http://film.asu.edu/certificates
LL 641
filminfo@asu.edu
480-965-6747

## Environmental Humanities Certificate (LAENHCERT)

Campus: TEMPE
Description: The environmental humanities certificate offers students who are interested in humanities-based approaches to the current global environmental crisis an option to focus in this vital area of study. Students take three ENG/ENH courses and four electives from selected programs that arefocused whollyor in large-part on the human relationship to the environment and the relationship between nature and culture. To gain practical experience, certificate students also complete a required English internship in environmental activism, policy development, education or other pertinent areas.

Program Requirements: The environmental humanities certificate consists of 24 hours, of which at least 12 hours must be upperdivision.
Core Required Courses (9)
Complete three English courses from the list below. Note: other ENG courses may be approved by an English advisor depending on special- or variable-topics courses available in given semesters.
ENG 334The American Southwest in Literature and Film(L/HU) (3)
ENG 359 American Indian Literatures (L/HU, C)(3)
ENG/TCL 363 Transborder Mexican and Chicano/a Literature of Southwest North America (L/HU, C)(3)
ENG 367 Environmental Issues in Literature and Film (L/HU) (3)
ENG 370/BIO 315Science, Values, and the Public (3)
ENG 371 Rhetoric of the Environmental Movement (3)
ENG 378 Environmental Creative Nonfiction (L/HU) (3)
ENG 468 EnvironmentalLiterary Criticism(L/HU) (3)
ENG 469 Science and Literature (may be repeated when topics vary) (L/HU) (3)
Internship (3)
ENG 484 Undergraduate Internship: Environmental Humanities Certificate (3)
If an environmental internship is not feasible, a student may petition to substitute 1) an ENG 499 Independent Study on an environmental studies applied project or literature/writing topic, or 2) an ENG 400-level course in environmental literature/writing. Electives (12)
Complete four additional courses (see advisor for approved list). Note: some courses are limited to students majoring in the discipline, have prerequisites or cannot be taken in combination with another course on the list. Additional courses may be approved by English advisor depending on special- or variable-topics courses available in given semesters.

Enrollment Requirements: For more information aboutthe environmental humanities certificate, contact an advisor in the Department of English.

## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://english.clas.asu.edu/
LL 542
englishadvising@asu.edu
480-965-3168

## Ethics Certificate (LAETHCERT)

Campus: TEMPE

Description: The ethics certificate is designed to give students a richer understanding of systematic philosophical thinking about ethics. Students with majors in business, nursing, journalism and public administration, and students planning to pursue legal careers, among others, may well find that training in ethics is beneficial to their career goals. The certificate program permits some flexibility regarding course selection, thereby facilitating particular student interests.

Program Requirements: The certificate in ethics consists of 18 credit hours approved by the undergraduate advisor in the School of Historical, Philosophical and Religious Studies. The student must take PHI 305 or PHI 335. At least 15 credit hours must be chosen from PHI 105, 304, 305, 306, 307, 309, 310, 320, 335, 360and (when its topic is within ethics) PHI 420. One course outside this list, and perhaps outside the school, may be used with written approval from the director of undergraduate studies. All courses must be passed with a minimum grade of " $C$ " (2.00).

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact the School of Historical, Philosophical and Religious Studiesfor more information.

## Contact Information:

Liberal Arts and Sciences, College of Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/ethics
COOR 3rd floor Advising Center
SHPRSadvising@asu.edu
480-965-8364

## Ethnic Studies Certificate (ASETHCERT)

Campus: WEST
Description: This certificate is designed for students who plan to work and live in ethnically diverse communities and seek to acquire the skills for understanding the complexities of race, class and gender at a local or national level. It is expected that students in the certificate program will be able to think both analytically and creatively about ethnicity in the U.S. The certificate is strongly recommended for students who plan to enter a wide variety of jobs in business, health professions, the criminal justice system, social services, education, public relations, community development, public policy or government. It is also valuable for students preparing for further graduate study.

Program Requirements: A certificate in ethnic studies is awarded for successful completion of 21 credit hours, including ETH 300 and 18 credit hours of elective courses from the approved course list. The certificate program is recommended for graduate students, non-degree students and students majoring in professional programs.

Enrollment Requirements: Students wishing to pursue the ethnic studies certificate should consult an academic advisor in the unit offering that certificate to ensure that the appropriate set of courses is taken and required paperwork submitted.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/certificates/erfns
FAB N201
harcs.dept@asu.edu
602-543-4444

## Family Communication Certificate (ASFAMCCERT)

Campus: WEST
Description: The family communication certificate offers students an opportunity to specialize their studies on issues regarding communication in the family. The certificate complements the current communication program by bringing together a broad array of courses that have family implications, such as courses in new media and health. In addition, students are encouraged to take courses in other disciplines that complement family-related communication courses.

Program Requirements: The family communication certificate offers students an opportunity to specialize their studies on issues regarding communication in the family. The certificate consists of 19 credit hours: 12 credits must be upper division, six must be non-communication credits, and a one credit exit portfolio course is to be taken after a minimum of 12 credits have been completed. Twelve of the 19 credits must be ASU credit. Six credits may be double counted with one's ASU major. Each class must be passed with a "C" (2.00) or better.

- Core Course (6).

Required:
COM 411 Comm in the Family
Select one:
COM 312 Conflict and Negotiation
COM 410 Interpersonal Comm
COM 417 Comm and Aging

- Four courses must be selected from at least two content areas listed below (12).

Social and Cultural Elements of the Family
AFS 370 Family, Ethnic and Cultural Diversity
ASB 346 Marriage and Family Diversity
COM 316 Gender and Communication
COM 410 Interpersonal Communication
FAS 301 Introduction to Parenting
FAS 331 Marriage and Family Relationships
FAS 370 Family, Ethnic \& Cultural Diversity
FAS 435 Advanced Marriage and Family Relationships
SBS 440 Family Studies
SOC 415 The Family

Technology, Media and the Family

COM 424 Television Studies
COM 457 New Media
ENG 244 Intro Research Family History
ENH 243 Intro to Writing Family History
MCO 473 Sex, Love, and Romance in the Mass Media
Health and Family Development
ALD 403 Aging, Lifespan Development, and the Family
ALD 420 Health Issues and Older Adults
ALD 431 Caregiving for Older Adults
CDE 430 Infant/Toddler Development in the Family
CDE 437 Infant Family Assessment and Observation
COM 417 Aging
CRJ 340 Juvenile Justice
FAS 332 Human Sexuality
FAS 431 Parent-Adolescent Relationships
FAS 436 Sexuality in Mid-Life and Beyond
PGS 341 Developmental Psychology
PGS 443 Abnormal Child Psychology
PGS 444 Adolescent Psychology and Psychopathology
SOC 312 Sociology of Adolescence
SOC 417 Family Violence
Community Application
COM 484 Internship (in consultation with FCC advisor)
COM 498 Inner City Families: Cycle of Poverty
COM 498 Inner City Families: Special Topics

- COM 498 Seminar Family Communication Portfolio (1).

This course is a synthesis of students' family communication academic experience. The portfolio itself integrates each student's family communication experience with theory and concepts from family communication courses. The portfolio may take a variety of forms, to be negotiated by each student with the instructor. This course is to be taken after a minimum of 12 credits toward the certificate have been completed.

- Substitutions allowed with faculty advisor approval.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://famcom.asu.edu/
FAB S110
SBS.Dept@asu.edu
602-543-6058

## Film and Video Studies Certificate (ASVIDCERT)

Campus: WEST
Description: The certificate in film and video studies explores theory and practice in the general field of the moving image. This interdisciplinary program provides students an opportunity to develop interests, skills and knowledge of the forms, channels, technologies and histories of the media arts. Students may pursue focused interests in film studies or adopt a more generalized approach to visual media through television, film and video.
The program is useful to students who may pursue careers in broadcasting, writing and public relations, and degrees in production, film studies, media studies, performance studies and communication studies. Courses in the film and video studies certificate are designed to:

- Develop astute and discriminating critics and analysts of film and media arts.
- Strengthen critical thinking through an awareness of the philosophical, aesthetic, political and technological debates in film, media and video studies.
- Develop knowledge of the history of film, television and the video arts as dynamic forces of social, cultural and political expression.
- Develop practical skills that enable students to be competitive in film, video, television and media-related production industries.

Program Requirements: A certificate in film and video studies is awarded for the successful completion of the 21 credit hours, 15 of which must be upper division (300-400 level). Students choose a focus in media and video studies or film studies.

Enrollment Requirements: The certificate in film and video studies is open to all undergraduate majors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/certificates/film
FAB N201
harcs.dept@asu.edu
602-543-4444

## Geographic Information Science Certificate (LAGISCERT)

Campus: TEMPE

Description: The geographic information science (GIS) certificate program is a structured interdisciplinary program. It is built on GIS course work currently being taught at ASU. Students who earn the certificate exit the program with standardized skill sets based on learning outcomes associated with each required course.

Program Requirements: The certificate is awarded to students completing the following 19 credit hours with a grade of " C " (2.00) or higher.
Required courses
CSE 100 Principles of Programming with C++, CS (3) or CSE 110 Principles of Programming with Java, CS (3)
GCU 495 Quantitative Methods in Geography, CS (3)
GPH 370 Geographic Information Technologies, CS (3)
GPH 373 Geographic Information Science I, CS (4)
GPH 473 Geographic Information Science II, CS (3)
Electives(3)
ABS 485 GIS in Natural Resources (3)
ABS 586 Remote Sensing in Environmental Resources (4)
GCU 361 Urban Geography, SB (3)

GCU 441 Economic Geography, SB (3)
GCU 442 Geographical Analysis of Transportation, SB (3)
GPH 371 Introduction to Cartography and Georepresentation, CS (3)
GPH 372 Air Photo Interpretation (3)
GPH 471 Geographics: Interactive and Animated Cartography and Geovisualization, CS (3)
GPH 481 Environmental Geography (3)
GPH 483 Geographic Information Analysis (3)
GPH 484 Internship: GIS-Based (3)
PLB 434 Landscape Ecological Analysis and Modeling (3)
Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact the school for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/undergrad-gis-certificate
COOR 5673
geoplan@asu.edu
480-965-7533

## Hazardous Materials and Waste Management Certificate (TSETMCERT) <br> Campus: POLY

Description: The certificate program in hazardous materials and waste management is designed to provide current and prospective employees of industry and government with a comprehensive and practical curriculum of study in hazardous materials management. The certificate program features instruction by faculty, attorneys and professionals who work in the specific area in which they teach. Participation in the certificate program is available in three options:

- A B.S. in environmental technology management with a certificate in hazardous materials and waste management.
- A certificate program for nondegree students.
- An M.S.Tech. with a certificate in hazardous materials and waste management.

Program Requirements: Students must complete seven selected courses (five required and two electives) and earn a grade of "C" (2.00) or higher to receive the certificate. Except for the introductory course, ETM 501 Principles of Hazardous Materials and Waste Management (ETM 401 for undergraduates), the remainder of the courses may be taken in any sequence.

Enrollment Requirements: Please contact the department for more information. For U.S. Department of Education Gainful Employment Program Disclosure information, see http://catalog.asu.edu/files/shared/GE_Disclosure_TSETMCERT.pdf.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/etm
SANTN 330
technology@asu.edu
480-727-1784

## History and Philosophy of Science Certificate (LAHPSCERT)

## Campus: TEMPE

Description: The School of Life Sciences offers an undergraduate certificate in the history and philosophy of science. This program is designed to give students an understanding of both traditional philosophic issues surrounding science and the historical development of concrete scientific theories and ideas.
The philosophic questions about how we understand nature through science and how scientific claims gain authority are enriched when they are considered in an historical context. Such philosophic and historical study will also often include the examination of contemporary sciences and their place within the larger society, including the study of bioethics, policy and law.

This certificate is a valuable addition for students in the sciences or the humanities. It crosses disciplines to help students engage in unfamiliar and familiar paths of inquiry in new and interesting ways.

## Program Requirements:

- The certificate requires 18 credit hours bearing a PHI or HPS prefix, of which 12 credit hours must be upper-division.
- Within the 18 credit hours, at least nine must bear the HPS prefix.
- PHI 314 Philosophy of Science is required.
- All courses counting toward the certificate must be approved by an undergraduate advisor in the School of Life Sciences and passed with a grade of "C" (2.00) or higher.

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact the School of Life Sciences for more information and see http://sols.asu.edu/cbs/programs.php.

## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSC 206
sols.advising@asu.edu
480-727-6277

## Honors Business Consulting Certificate (BAECNUERT) <br> Campus: TEMPE

Description: This certificate is designed to enhance your knowledge in a major while also adding to your understanding of business strategy in a global market. The required curriculum strengthens skills in:

- Business judgment.
- Conceptualization of strategic solutions.
- Critical thinking and problem solving.

Program Requirements: The program consists of 15 hours of course work. Only courses in which a student earns a grade of "C" (2.00) or higher may be used to meet the certificate requirements. Students must meet all prerequisites and course requirements as listed in the catalog. All 15 credit hours must be ASU credit.
Honors Business Core, with grade of " $B$ " or higher in each course (6)
ECN 303 Honors Managerial Economics
FIN 303 Honors Finance
MGT 303 Honors Organizational Strategies, Leadership and Behavior
MKT 303 Honors Marketing Theory and Practice
SCM 303 Honors Global Supply Operations
Business Modeling and Analysis, with grade point average of 3.00 or higher (9)
WPC 494a Consulting in Business
WPC 494b Modeling Tools in Consulting
WPC 494c Consulting Projects (capstone) - OR - WPC 493 Honors Thesis/Creative Project

Enrollment Requirements: The Certificate in Honors Business Consulting is limited to honors students in the W. P. Carey School of Business. Students must submit an application for admission during the spring semester of their sophomore year.
Please contact the department for more information.

## Contact Information:

Business, W. P. Carey School of
Department of Economics
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Human Rights Certificate (LAHRTSCERT)

Campus: TEMPE
Description: The undergraduate certificate in human rights offers a model for educating and training students through socially embedded, transdisciplinary dialogue, research and practice. Course work in the social sciences, law and the humanities will prepare students to critically examine societal problems and to design culturally congruent and contextually specific solutions to human rights dilemmas in such areas as:

- Child welfare.
- Economic development.
- Education.
- The environment.
- Health.
- Indigenous rights.
- Labor rights.
- Violence against women.
- Water and energy resources.

The certificate provides students with historical, legal and philosophical perspectives from which to think broadly and critically about human rights issues, and introduces them to social science and policy research on rights, conflict and governance; to human rights conventions, laws and treaties; and to the institutions that seek to uphold these agreements (i.e., international tribunals, nongovernment organizations). Students gain background and skills needed to work within those professions most closely aligned with human rights, including some aspects of law, nongovernment organizations and other nonprofits and policy development.

Program Requirements: Students must complete 18 hours of qualifying course work, at least 12 hours of which must be from ASU. A minimum grade of "C" (2.00) is required for a course to count towards the certificate.
Required Certificate Core Courses:

- Global Politics of Human Rights (3)

Students must select one of the following courses:
POL 494 International Human Rights
JUS 352 The Global Politics of Human Rights

- Human Rights Institutions and Organizations (3)

Students must select one from the following options:

POS 465 International Organization and Law
SGS 394 International Institutions and Global Governance

- Interdisciplinary Component (9)

Sudents must select three electives on current issues in human rights. Courses must be taken from at least two of the substantive areas listed below, and from two or more academic units. Any course listed below may count towards this requirement, as well as other courses as approved by the certificate program director.

States and Conflict
HST 370 Eastern Europe in Transition
HST 436 The Soviet Experiment
JUS 374 Holocaust, Genocide and Human Rights
JUS 469 Political Deviance and the Law
JUS 479 Law and Disputing
JUS 467 Terrorism, War and Justice
JUS 494 Justice in Times of Transition
JUS 452 Justice Issues in Israel/Palestine
POS 369 War, Politics and Society
POS 465 International Organizations and Law
POS 368 Ethics and Human Rights in Global Politics
REL 388 Religion, Ethics, and International Affairs
REL 486 Holocaust in Film

Social Stratification and Human Rights
AFH 305 The Global History of the Trans-Atlantic Slave Trade
AFH 327 Human Rights in Africa
AFS 494/WGS 598 Women's International Human Rights
APA 394 Inequality and Diversity in Education
APA 394 Asian Pacific American Immigration and Social Justice
JUS 321 Wealth Distribution and Poverty
JUS 325 Globalization and Socio-Economic Justice
JUS 405 Economic Justice
JUS 415 Gender and International Development
JUS 477 Youth and Justice
PHI 309 Social and Political Philosophy
WST 394 Women and International Health

Marginalization and Human Rights
AFS 301 Race and Racism in the African Diaspora
AFS 304 Islands of Globalization
AFS 394 Race, Ethnicity and Politics in the African Diaspora
APA 330 Asian Pacific American Genders and Sexualities
APA 360 The Asian Pacific American Experience
ASB/SBS/SOC/POL 339 Introduction to Social Movements
JUS 430 Social Protest, Conflict and Change
JUS 469 Political Deviance and the Law
JUS/REL 483 Religion, Violence and Conflict Resolution
POS 480 Global Justice
SGS 343 Religion, Nationalism and Ethnic Conflict
SOC 445 Globalization, Development and Resistance
WGS 410 Poverty, Social Justice and Global Health
WGS 498 Gender, Religion and Global Violence

- Experiential Learning Component (3)

A central element of this certificate program will be the linkage of learning and doing by connecting theoretical and substantive learning about human rights with practical knowledge a

Enrollment Requirements: Students who have attained junior standing ( 56 credit hours) in any undergraduate degree program in any field at ASU are eligible for admission to the certificate in human rights. There are no formal admissions procedures to begin certificate course work, but students should contact the certificate in human rights program director or an advisor as soon as they decide to begin pursuing the certificate. They should initiate this correspondence with a message containing their name, e-mail address, major, year of study and anticipated graduation date, as well as a general statement of interest.
In addition to the undergraduate advisors in the School of Justice and Social Inquiry, students will receive advising assistance from the certificate director or a member of the certificate program committee in developing a plan that will ensure successful completion of certificate requirements. To facilitate this process, each participating unit has a representative on the program committee. Students are responsible for consulting with an advisor in the School of Justice and Social Inquiry prior to graduation to request that the certificate be recorded on their transcripts.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://justice.clas.asu.edu/
WILSN 125
justiceinfo@asu.edu
480-965-7682

## Informatics Certificate (ESCPICERT)

Campus: TEMPE

Description: The certificate in informatics will train students to use computer technology to gather, synthesize, store, visualize and interpret information. These skills are critical to a broad range of disciplines. This certificate will provide students with an understanding of the capabilities and technologies of informatics as it applies to domain specific problems in their field of study. Students completing this certificate will be able to use methods for and understand the basic computational principles behind the operation of:

- Communication, networking and interaction.
- Decision-making and problem solving.
- Modeling, inference and visualization.
- Representing, creating and running routine activities.
- Storing, indexing and retrieving information.

Graduates should be in high demand within the software industry, but also in government, education, science, medicine, and other fields that make use of computer technology. Students with the applied and user-oriented focus of thecertificate will be attractive to such employers.

Program Requirements: This program requires 21credit hours of course work. Students will take 15 credit hours of required courses and will choose six credit hours of elective course work.
Core Courses

CPI 101 Introduction to Informatics (3) (CS)
CPI 200 Mathematical Foundations of Informatics (3) (MA)
CPI 310 Information and Data Management (3)
CPI 360 Decision Making and Problem Solving (3)
STP 226 Elements of Statistics (3) *
*Please consult an advisor about alternate statistics courses.
Electives (select two)*
ART 345 3D Visualization and Rapid Prototyping (3)
BIO 355 Introduction to Computational Molecular Biology (3)
CPI 400 Scientific Computing and Visualization (3)
CPI 420 Technology and Society (3)
CPI 430 Social Simulation (3)
ENG 374 Technical Editing (3)
GPH 370 Geographic Information Technologies (3)
STS 306 Social Effects of Science and Technology (3)
*Certain departments may offer additional courses which could satisfy this elective requirement. Please consult with an advisor for approvals.

Enrollment Requirements: The undergraduate certificate in informatics is available to students in noncomputing majors who are in good standing at ASU, and may be used by B.I.S. students as part of their degree program. Students need to submit an Undergraduate Certificate form to the School of Computing, Informatics and Decision Systems Engineering Advising Center. This form is available on the registrar's website. B.I.S. studentsneed tocontact their B.I.S. advisor to add the informatics concentration to their degree program.

## Contact Information:

Engineering, Ira A. Fulton Schools of Computing and Informatics Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

International Business Studies Certificate (BAIBSCERT)
Campus: TEMPE

Description: Students can expand their horizons and opportunities by learning about the global economy. The certificate is designed to:

- Develop competence in a foreign language.
- Develop sensitivity to foreign cultures.
- Provide an awareness of global social processes.
- Provide an understanding of international business environments, principles and operations.

The W. P. Carey School of Business has partnerships with universities in Europe, Asia and Latin America so you can experience new cultures, visit new places and build intercultural and language skills. International internships also are offered in conjunction with the ASU Study Abroad Office.

Program Requirements: This certificate program requires a minimum of 18 credit hours, which are outlined below. All business course work must be completed through the W. P. Carey School of Business or through an approved ASU international study program. Only courses in which a student receives a grade of \&Idquo;C\” (2.00) or higher may be used to meet the certificate requirements, and an overall certificate GPA of at least 2.50 must be earned. Students must meet all course prerequisites and requirements as listed in the ASU catalog.Certificate requirements must be completed within one year of graduation date. The four required areas of completion for the certificate are:

- International business course work (9).
- Non-business global awareness course work (9).
- Language proficiency.
- International study experience.
A. International Business Course Work (9)

A total of three international business courses are to be taken. Students must choose one foundation course and two electives. Foundation course (3): MGT 302 Principles of International Business or ECN 306 Survey of International Economics or AGB 302 International Management and Agribusiness
Elective courses (6).
B. Non-Business Global Awareness Course work (9)

These hours may be satisfied by any combination of the following:

- Recommended: It is recommended to choose courses related to your area of study abroad experience.Additional courses may be approved by the International Program Coordinator.
- Any university designated non-business Global Awareness (\&Idquo;G\”) courses.
- Non-business global awareness hours may also be satisfied by:
- An ASU or W. P. Carey School of Business education abroad program for one semester fulfills all nine hours of non-business global requirements.
- An ASU or W. P. Carey School of Business program earning six credit hours fulfills six of the hours of non-business global requirements.
- An ASU or W. P. Carey School of Business program earning three credit hours fulfills three of the hours of non-business global requirements.


## C. Foreign Language Proficiency

The certificate program requires the equivalent of one year of college-level study of a foreign language. Foreign language proficiency is met in one of the following ways:

- Completion of one year (two semesters) of the same foreign language at the college level.
- Completion of one semester of the equivalent of 101 and 102 level course work.
- Completion of two years of the same foreign language in high school with a minimum grade of \“C\” (2.00).
- Documentation of a proficiency test confirming you are prepared to start at least the second year of a foreign language (201 level or above).
- A student whose first language is not English may have this requirement waived.
D. International Study Experience

Participation in an ASU-approved international study program is required.

Enrollment Requirements: Students need to complete an application, which is available online or in BA 109. Please contact the department for more information and see http://wpcarey.asu.edu/international.

## Contact Information:

Business, W. P. Carey School of
Dean, W.P. Carey School of Business
http://wpcarey.asu.edu/
BA 109
wpcareyug@asu.edu
480-965-4227

## International Studies Certificate (LAINSCERT)

Campus: TEMPE

Description: The international studies certificate is designed to prepare students for careers in government agencies, international governmental and nongovernmental organizations, multinational firms and banks and for graduate studies in international relations or political science. The certificate is not a substitute for degree requirements in any subject, including political science; rather, the required courses add an international and comparative dimension to the student's chosen major.

Program Requirements: Requirements for the certificate are intended to provide an understanding of international relations and comparative government, an awareness of global, social and political-economic processes and sensitivity to foreign political systems and cultures. These objectives are met by a sequence of political science courses in the areas of international relations, comparative politics and area studies. Students majoring in any subject at the university may be awarded the international studies certificate upon completion of the following 15 credit hours of political science courses.
Choose one from the courses below:

POS 150 Comparative Government, SB, G (3)
POS 160 Global Politics, SB, G (3)

Choose one from the courses below:

POS 361 American Foreign Policy SB, G (3)
POS 364 National Security, Intelligence and Terrorism SB (3)

Choose two from the courses below:

POS 300 Contemporary Controversies in Global Politics, SB, G (3)
POS 368 Ethics and Human Rights
POS 465 International Organization and Law, SB, G (3)
POS 467 International Security, SB, G (3)
POS 486 International Political Economy, SB, G (3)

Choose one from the courses below:

POS 350 Comparative Politics, SB, G (3)
POS 355 Russia and Successor States, SB, G (3)
POS 356 European Union, SB, G (3)
POS 357 South Asia Politics, SB, G (3)
POS 358 Southeast Asia, SB, G (3)
POS 359 African Politics and Society, SB, G (3)
POS 360 World Politics, SB, G (3)
POS 451 China, Japan and the Koreas, SB, G (3)
POS 452 China, SB, G (3)
POS 453 South America, SB, G (3)
POS 454 Mexico, SB, G (3)
POS 455 Central America and the Caribbean, SB, G (3)
POS 459 South and Southern Africa, SB, G (3)
POS 463 Inter-American Relations, SB, G (3)

Certificate students must have a minimum GPA of " $C$ " (2.00); only courses in which students have a grade of " $C$ " (2.00) or higher count toward the certificate.

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact the School of Government, Politics and Global Studies for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Politics and Global Studies
http://spgs.clas.asu.edu
COOR 6797
480-965-6551

## Islamic Studies Certificate (LAISLCERT)

Campus: TEMPE
Description: Any student admitted tostudy at ASU iseligible for the Islamic studies certificate program. Students who complete all the requirements of their undergraduate major, their college and the certificate program receive the certificate plus transcript recognition of their particular emphasis. The certificate program is designed to prepare students for graduate programs in religious studies, Islamic studies and area studies or for any academic discipline (such as professional programs in international law and business) that focuses on global Muslim society.

Program Requirements: Students must complete a minimum total of 26 credit hours, chosen in consultation with the Islamic studies program coordinator. A minimum grade of " $C$ " (2.00) is required in each course. A minimum of 12 upper division hours are required. To earn the certificate, students must complete these requirements:

- Eight credit hours of Arabic, Indonesian or another language approved by the program coordinator; students who are native speakers of these languages or who otherwise have equivalent knowledge substitute two additional courses approved by the program coordinator.
- Nine credit hours from REL 260 Introduction to Islam, REL 365 Islamic Civilization and REL 366 Islam in the Modern World.
- Three upper divisionREL elective credit hours in courses that deal with Islam and/or Islamic studies (must be approved by the program coordinator).
- Six elective credit hoursin courses from a variety of disciplines that deal with Islam and/or Islamic studies (must be approved by the program coordinator).

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate.

## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/islamic
COOR 3rd floor Advising Center
SHPRSadvising@asu.edu
480-965-8364

## Jewish Studies Certificate (LAJUDCERT)

## Campus: TEMPE

Description: The Jewish studies program is designed with the following goals in mind:

- To examine the history and culture of the Jews.
- To generate and facilitate research on Judaica.
- To provide the community with programs, courses, and research furthering the understanding of Judaica.
- To provide a model for interdisciplinary teaching and research.
- To stand as an example of the university's commitment to a program of meaningful ethnic studies on a firm academic base.

Program Requirements: To complete the certificate in Jewish studies, a student must successfully complete seven approved courses (a minimum of 12 upper-division credit hours)in Jewish studies with a grade no lower than a " C " (2.00) in any course. Students should declare themselves as Jewish studies certificate candidates as early as possible in their program of study, and accomplish the following prior to graduation:

- Formal declaration of intent through the submission of the Certificate in Jewish Studies Application.
- Completion of at least seven courses in Jewish Studies, including two semesters of Hebrew language or equivalent approved courses.
- One course in three of the following five areas:
- History.
- Humanities.
- Literature.
- Religious studies.
- Social studies.
- Two courses of the student's choice in any Jewish studies related subject.

Petition for receipt of the certificate by notifying religious studies advising upon completion of courses.

Enrollment Requirements: Please contact the School of Historical, Philosophical and Religious Studies Advising Center for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://jewishstudies.clas.asu.edu/certificate
COOR 3rd floor Advising Center
SHPRSadvising@asu.edu
480-727-6906

## Knowledge Entrepreneurship and Innovation Certificate (BAKEICERT)

## Campus: TEMPE

Description: The certificate program is comprised of three, university-wide core courses followed by two courses within a student's disciplinary college. Individual colleges will be encouraged to offer a capstone course as part of the program. Beyond topics related specifically to entrepreneurial business practices, courses include such topics as social entrepreneurship, arts entrepreneurship, idea generation and storytelling as additional perspectives for the student entrepreneur.
Students completing the certificate in knowledge entrepreneurship and innovation are recognized for their achievements on their transcript. Career services markets the certificate to potential employers, highlighting the innovative skills that students with this designation can offer.

Program Requirements: Required Core (9)

- CORE 1: MGT 294 My Life Venture OR TEM 294 My Life Venture
- CORE 2: MGT 394 Creativity and Innovation OR TEM 394 Innovation and Creativity Methods (3)
- CORE 3: MGT 360 Entrepreneurship and Value Creation OR TEM 394 Technological Entrepreneurship

Capstone Experience (at least 6 credit hours)

- It is the responsibility of the student to check the prerequisites required by courses in their discipline.
- Capstone courses will be designated and approved by individual disciplinary colleges.
- Capstone courses will consist of existing courses or new courses created by departments.

Prerequisite Information

- MGT 394 Creativity and Innovation has a prerequisite requirement of WPC/MGT 294 My Life Venture with a "B" (3.00) or above OR current W. P. Carey School of Business B.A. or B.S. student status.
- MGT 360 Entrepreneurship and Value Creation has a prerequisite requirement of: WPC/MGT 294 My Life Venture with a grade of "B" (3.00) or above and WPC/MGT 394 Creativity and Innovation with a grade of "B" (3.00) or above OR ACC 240 or ACC 241 with a grade of "C" (2.00) or above.


## Contact Information:

Business, W. P. Carey School of
Department of Management
http://wpcarey.asu.edu/
BA 352L
wpcadmissions@asu.edu
480-965-1184

## Korean Studies Certificate (LAKORCERT)

Campus: TEMPE
Description: The certificate in Korean studies aims to train and produce students who are linguistically able and culturally informed. The program consists of two major components. The first is to build students' language proficiency in Korean in the areas of speaking, listening, reading and writing. The second is to offer students a broad range of knowledge of the culture, literature, history, art and religions of Korea. The certificate allows students to focus on Korean studies, which cannot be attained through the existing degree or non-degree programs in East Asian studies at ASU. The program will enrich students' perspectives on different cultures and socities at the intellectual level and also equip students with practical knowledge of Korea that will benefit careers in various professions, including academe, government work, international trade, NGOs, and translations.

Program Requirements: Language RequirementStudents must demonstrate proficiency in the Korean language at the intermediate level. The language requirement can be satisfied by completing the 201-202 sequence, one year of study abroad at the intermediate level, or achieving a satisfactory score on a proficiency exam. Language proficiency evaluations will be conducted by Dr. Chan Young Park (cypark@asu.edu).Core Courses ( 12 credit hours)Students must complete at least 12 credit hours at or above the 300 level of core courses from the following:KOR 313 Third-Year Korean IKOR 314 Third-Year Korean IIKOR 347 Korean Film and LiteratureKOR 350 Women of KoreaREL 354 Religious Tradition of Korea
Elective Courses ( 6 credit hours)In addition to the above core courses, students are required to complete 6 credit hours from an approved list of electives. These courses must be from two different departments. The following is a model of a list of electives:REL 394 Korean BuddhismHST 303 Studies in Asian HistoryHST 388 JapanREL 345 Asian Religious TraditionsHST 451-452 Chinese Cultural historyCHI 494 Print Culture and Book in East AsiaAdditional courses may be approved by the coordinator of the certificate program. These credit hours will be chosen in consultation with the certificate coordinator. The completion of the requirements will be reviewed both by the students' designated advisors and the coordinator of the program. A minimum grade of " C " or better is required in each course. In the end, the coordinator will sign off on the certificates.

Enrollment Requirements: ASU students admitted to a degree program in any field of study would be eligible for the Korean studies certificate program. Other than the course work and examinations required in the major field of interest, students would be responsible for fulfilling the minimum requirements of 18 credit hours (at least 12 credit hours for core courses) in addition to the basic language requirement to earn the Korean studies certificate.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/
LL 402B
silc@asu.edu
480-965-0420

## Latin American Studies Certificate (LALASCERT)

Campus: TEMPE
Description: The Latin American studies certificate program is designed to give students an understanding of culture, economies, political structures and the history of Latin American nations. The departments of economics, geographical sciences, history and
political science, the School of Human Evolution and Social Change, the School of International Letters and Cultures (Spanish and Portuguese) and the School of Transborder Studies offer courses that combine in the interdisciplinary certificate.

## Program Requirements:

- Students must complete 30 credit hours of upper-division courses with a "C" (2.00) or better from the above departments/colleges with a concentration in Latin America, 15 credit hours in the major subject and 15 credit hours in other disciplines.
- The certificate requires Spanish or Portuguese proficiency through the 313 level of conversation and composition.
- Only language courses above 313 in literature and civilization count toward a major or interdisciplinary areas of preparation.
- Spanish and Portuguese courses above 313 in grammar and phonology do not count toward the major requirements. Students should meet with the certificate advisor regarding course questions.

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. For more information, contact the School of International Letters and Cultures and see the school's webpage for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://silc.asu.edu/undergraduate/certificates
LL 440
silc@asu.edu
480-965-6281

## Leadership and Ethics Certificate (PPLDECERT)

## Campus: DTPHX

Description: The certificate in leadership and ethics is designed for undergraduate students who are interested in developing leadership skills or wish to enhance their degree in an existing major at ASU, working adults who may wish to further their education yet may not be looking for a degree program, or B.I.S. students who seek to combine certificates with their degree.
The certificate program provides a catalyst for students to become ethical leaders of organizational and community change. This certificate is designed to:

- Explore the relationship between leadership and the capacity for individuals to assume responsibility for their actions and to act with a sense of ethics and integrity.
- Focus on understanding the broad interdisciplinary field of leadership and its application to various elements of society and community.
- Prepare individuals for positions of leadership and responsibility in the university, student organizations, in their communities and throughout their careers in business, government and society.

Program Requirements: The certificate in leadership and ethics consists of 15 credit hours of course work. Students take 12 hours of core classes and three hours of elective courses. The three hours of elective course work may be selected from an approved list of elective classes or upon the recommendation of the department.
All courses applied to the certificate must be completed with a grade of "C" ( 2.00 on a 4.00 scale) or better. The certificate in leadership and ethics requires four core courses, including a leadership capstone experience, and one elective, discipline-based course in leadership or ethics.
Core classes
PAF 410 Building Leadership Skills (3)
PAF 411 Leadership and Change (3)
PHI 394 Ethics and Justice (3) or PAF 460 Public Service Ethics (3)
PAF 494 Leadership Capstone (3)
All core courses and the leadership capstone must be taken at Arizona State University. Any course substitutions for the certificate are at the discretion of the School of Public Affairs.

Enrollment Requirements: There are different application requirements, depending on your enrollment status with ASU. Students are also encouraged to schedule an appointment with the undergraduate academic adviser in the School of Public Affairs. Undergraduate Students Currently Enrolled at ASU
Current students interested in earning the certificate must complete a request to add an undergraduate certificate and return it to the undergraduate academic advisor in the School of Public Affairs at the University Center on the Downtown Phoenix campus.

Students may begin taking courses before they formally register for the certificate; however, they are encouraged to complete the paperwork as soon as possible.
Download the request to add an undergraduate certificate at http://students.asu.edu/node/1993.
Individuals Not Currently Enrolled at ASU
Individuals who are not currently enrolled as students at Arizona State University must complete an application to enroll as a nondegree seeking student before they may begin taking courses. For information on admissions and to complete an application, visit the university's nondegree student admissions page at http://students.asu.edu/non-degree-student-admission. Once students have been admitted, they are eligible to enroll in courses to complete the certificate program.

## Contact Information:

Public Programs, College of
School of Public Affairs
http://spa.asu.edu/new/undergrad/leadership\&ethics.htm
UCENT 400
spa@asu.edu
602-496-0450

## Lesbian, Gay, Bisexual, and Transgender Studies Certificate (PPLGBTCERT)

## Campus: DTPHX

Description: The undergraduate certificate in lesbian, gay, bisexual and transgender studies is offered by the Committee on Lesbian, Gay, Bisexual, and Transgender Studies, administered through the College of Public Programs. Advising is provided through University College. Lesbians, gay men, bisexuals and transgendered (LGBT) people play important roles as colleagues, clients, parents, children, siblings, neighbors, employees, employers, religious leaders and friends. Given the increasing visibility and changing political climate for LGBT people in the United States, all students, not only those who identify themselves as gay, lesbian, bisexual or transgender, are served well by learning about the histories, communities and contemporary social issues regarding people from LGBT backgrounds.
The educational experience is enhanced when students are introduced to complex intersections between and among sexual, racial, ethnic, religious, geographic and national identities. The philosophy of this certificate program is to promote intellectual and pedagogical diversity as one of the university's greatest assets, in part by instilling in students sensitivity to cultures different from their own, but also through careful analysis of the self in historical, artistic and sociocultural contexts. The goals of the certificate program are to give students:

- Knowledge about specific lesbian, gay, bisexual and transgendered communities.
- Knowledge about the history and maintenance of the category, lesbians and gay men.
- Practical experience in utilizing course work knowledge in the community through an internship or community service project.
- Theoretical perspectives on heterosexuality as a presumptive sexual identity.
- An understanding of lesbian, gay, bisexual and transgender studies as an academic area of inquiry.
- An understanding of community politics, dynamics and conflicts.
- Use-inspired education that culminates in a public presentation.

Program Requirements: The certificate requires 15 credit hours; a minimum of 12 must be upper division. The two required courses are 1) Introduction to Lesbian, Gay, Bisexual, and Transgender Studies, and 2) the capstone experience. The remaining nine hours are electives from an approved list.

Enrollment Requirements: Please contact University College or visit the college's website for more information.

## Contact Information:

Public Programs, College of
College of Public Programs
http://uc.asu.edu/LGBT
UCENT 300
480-965-4464

## Medieval Studies Certificate (LAMRSCERT)

Campus: TEMPE

Description: An undergraduate certificate in medieval and Renaissance studies is offered by the Arizona Center for Medieval and Renaissance Studies (ACMRS). In order to reflect the interdisciplinary nature of the field, the ACMRS has established a certificate program for undergraduate students in medieval and Renaissance studies.
The program provides students the opportunity to take classes from several disciplines, and to receive training in both Latin, the international language of the periods, and paleography, the study of the physical medium through which Latin and other languages were transmitted. Obtaining the certificate prepares undergraduate students for advanced study, and it augments the skills and knowledge necessary for graduates to succeed in academic positions in their field.

Program Requirements: In addition to the course work and examinations required in a student's major field of interest, the following minimum requirements must be fulfilled to earn the certificate, 1) six credit hours of classical Latin and six credit hours of Latin (classical and/or medieval) or of a vernacular language of the period (e.g., Old English, Old Norse, Old French, Renaissance Italian), and 2) six credit hours of course work in medieval and Renaissance studies outside the major discipline. Students must also complete a thesis, writing within the major on a topic concerning the Middle Ages or Renaissance. Students may earn three credit hours of independent study for the thesis. The thesis may be used to fulfill the Honors College thesis requirement for students enrolled in Barrett, the Honors College. A minimum of a " $C$ " $(2.00)$ average is required in all course work leading to the certificate.

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate.Please contact ACMRS for more information: http://acmrs.org/academic-programs/certificate.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://acmrs.org/academic-programs/certificate
COOR 4432
acmrs@asu.edu
480-965-8097

## Nonprofit Youth/Human Service Leadership/Management awarded thru American Humanics Inc Certificate (PPNPYCERT)

## Campus: DTPHX

Description: The certificate program in nonprofit leadership and management American humanics provides education and preparation for leadership and management positions in nonprofit youth and human service organizations. The program features professional affiliation with and certification by American Humanics, Inc., the nation's leader in education for nonprofit careers. American Humanics collaborates with a number of nonprofit organizations, including:

- American Red Cross.
- America's Second Harvest.
- AmeriCorps.
- The ARC.
- Big Brother Big Sisters.
- Boys and Girls Clubs.
- Boy Scouts of America.
- Camp Adventure.
- Camp Fire U.S.A.
- Corporation for National and Community Service.
- Girls Inc.
- Girl Scouts of the U.S.A.
- GuideStar.
- The Humane Society of the United States.
- Junior Achievement.
- March of Dimes.
- National 4-H Council.
- National Urban League.
- Opportunity Knocks.org.
- Points of Light Foundation.
- United Way of America.
- Volunteers of America.
- Y.M.C.A. of the U.S.A.

Program Requirements: The program includes active participation by nonprofit professionals who offer workshops, seminars, mentoring and field trips. American Humanics national certification can be earned in conjunction with any bachelor's degree. Requiredcourses (30)

NLM 220 Introduction to Nonprofit Organizations (3)
NLM 300 Fund Raising and Resource Development (3)
NLM 310 Volunteer Management (3)
NLM 320 Professional Development Seminar (4)( one credit each over four semesters)
NLM 420 American Humanics Institute (2)
NLM 430 Managing Nonprofit Organizations (3)
NLM 463 Senior internship (12)
Enrollment Requirements: Applications forthe American Humanics certificate areavailable through the School of Community Resources and Development academic advisors andthe American Humanics program coordinator.

- A minimum "C" (2.00) grade required for all classes in the certificate.
- A minimum GPA of 2.00 for those pursuing the certificate.
- Must be a junior to take 400-level courses.
- Thirty hours of graded course work.


## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Oral History Certificate (ASOHCCERT)

Campus: WEST
Description: The oral history certificate in New College introduces students to the interdisciplinary theories and methods of oral history that enable scholars, students and practitioners to collect, document and preserve the stories and memories of people's lives. The certificate will train students to acquire critical knowledge and applied skills, and to abide by the professional standards involved in oral history documentation, research and presentation. Students in the program may build on existing projects or develop new community relationships at local, national and international levels. Consistent with ASU's mission and New College goals, the certificate fosters and understanding and appreciation of diverse cultures, past and present, and engages students in socially embedded and ethical practices in oral history research and interviewing.

Program Requirements: Students must meet with the program academic advisor to review the requirements and sign the certificate check sheet. The student should also consult with and academic advisor in the college or department of his or her major to make sure the college or department recognizes the certificate. All course work in the program must be completed with a grade of "B" (3.00) or higher. A total of 18 credit hours is required.

Residency Requirement
Of the 18 upper-division credit hours required for the certificate, 12 credit hours must be completed at ASU.
Core Requirements (6)
ETH 310 Critical Research Methods (3)
AMS 498 Pro-Seminar (3)
Additional Requirements (12)
The course bank includes upper-division courses offered across the university. Students may choose from the following prefixes upon approval by appropriate faculty or advisor:

- American Studies (AMS).
- English (ENG).
- Ethnicity, Race and First Nation Studies (ETH).
- History (HST).
- Interdisciplinary Arts and Performance (IAP).
- Integrative Studies (IAS).
- Philosophy (PHI).
- Religion (REL).
- Sociology (SOC).
- Spanish (SPA).
- Women and Gender Studies (WST).

Recommended courses
COM 346 Oral History and Storytelling (3)
ENG 317 Cross-Cultural Writing (3)ENG 376 Writing a Personal History (3)ENG 377 Editing Family History for Public Audiences (3)ENG 394 ScriptwritingENG 412 Creative Nonfiction (3)ENG 476 Studies in Folklore (3)IAP 331 Performance, Acting, and the Individual (3)IAP 364 DocumentariesSOC 389 Ethnographic Field Lab (3)WST 370 Chronicling Women's Lives (3)WST 473 Latina/Chicana Representations

Enrollment Requirements: The certificate in oral history is open to any student admitted to study at Arizona State University. The certificate program is also available for graduate students, non-degree students and students majoring in professional programs. Contact advisors in the Division of Humanities, Arts and Cultural Studies for admission to the certificate program.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/certificates/oralhistory
FAB N201
harcs.dept@asu.edu
602-543-4444

## Philosophy, Politics, and Law Certificate (HOPPLCERT)

## Campus: TEMPE

Description: Students enrolled in Barrett, the Honors College may pursue the certificate in philosophy, politics and law. This interdisciplinary program affords an opportunity to engage in a focused program of study that brings analytical rigor to bear on the philosophical issues involved in law and politics.

Program Requirements: The concentration comprises six courses (18 credit hours), two of which are offered through Barrett. One of these courses, normally taken in the student's second year at ASU, is a seminar on law, justice and morality (HON 310). The second course is a junior-senior seminar on theories of justice, or a related topic in philosophy, politics and law, that entails an extended paper (HON 410). The remaining four courses must be approved by the philosophy, politics and law council and selected from courses regularly offered in philosophy, political science and other areas.

Enrollment Requirements: Students must be in good standing with Barrett, the Honors College or be admitted upon nomination by a member of the philosophy, politics and law faculty and approval by the philosophy, politics and law council. Please contact Barrett for more information.

## Contact Information:

Honors - Barrett, The Honors College
The Barrett Honors College
http://barretthonors.asu.edu/home/2008/12/philosophy-politics-and-law-certificate/
SGHAL110
480-965-4033

## Philosophy, Rhetoric and Literature Certificate (ASPRLCERT)

Campus: WEST

Description: The certificate in philosophy, rhetoric and literature within the New College of Interdisciplinary Arts and Sciences is an interdisciplinary program that works across the humanities by examining philosophical approaches to literary studies, disputes between rhetoric and philosophy, and rhetorical elements of literature and theory. The philosophy, rhetoric and literature certificate
will enable students to explore where and how the boundaries among philosophy, rhetoric and literature are constructed, maintained and changed. This certificate is transdisciplinary and aimed at integrating Continental philosophy (including philosophy of religion), critical theory (both in its broader origins within literary cultural studies and its historically specific genealogy from the Frankfurt School), rhetoric, literary criticism, aesthetics and communication. This certificate will prepare students in the humanities, social and behavioral sciences and the arts for lifelong learning, advanced study in a variety of fields, and successful careers in an increasingly diverse society.

Program Requirements: The certificate in philosophy, rhetoric and literature is open to any student admitted to study at Arizona State University. A certificate in philosophy, rhetoric and literature is awarded for successful completion of 18 upper-division credit hours of course work:

- One course in rhetoric (3).
- One course in Continental philosophy (see core requirements) (3).
- Twelve elective credit hours from the approved course list in Philosophy, Rhetoric and Literature ( 6 credit hours from pool A and 6 credit hours from pool B).

All elective course offerings from the course bank will be regularly updated and overseen by the facilitators of the certificate program. Students must meet with the program academic advisor to review the requirements and sign the certificate check sheet. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major recognizes the certificate. All course work in the program must be completed with a grade of $B(3.00)$ or higher.
Of the 18 upper division credit hours required for the certificate, 12 credit hours must be completed at ASU.
I. Core Requirements ( 6 credit hours)

Rhetorical Perspectives ( 3 credit hours from the approved course list in philosophy, rhetoric and literature)
ENG 472 Rhetorical Studies
COM 321 Rhetorical Theory and Research
ENG 494 Rhetoric, Literature and Poetics
ENG 394/494 Special Topics*

Philosophical Perspectives (3 credit hours from the approved course list in philosophy, rhetoric and literature)
PHI 394/REL 394 Studies in Contemporary Continental Philosophy
PHI 494/REL 494 Studies in Critical Theory
PHI 494/REL 494 Philosophy and Literature PHI 494/REL 494 Continental Philosophy and Religion
II. Electives ( 12 credit hours, 6 credit hours each from pools $A$ and $B$ )

Electives come from the course bank of approved courses for Philosophy, Rhetoric and Literature.
Pool A ( 6 credit hours)
ENG 400 History of Literary Criticism
ENG 401 Topics in Critical Theory
ENG 421 Studies in Shakespeare
ENG 431 Whitman and Dickinson
ENG 440 Studies in American Literature and Culture
ENG 450 The British Novel
ENG 454 Gender and Literature
ENG 461 Studies in Women and Literature
ENG 472 Rhetorical Studies
ENG 478 Modernist Literature
ENG 479 International Postmodern Literature
ENG 494 Rhetoric, Literature and Poetics
ENG 494 Special Topics: The Postcolonial Novel
ENG 394/494 Special Topics*
HON 394/494 Special Topics*
IAP 310/IAS 310 Women in Art
IAP 371Verbal Art
IAP 372 The Critical Artist
IAP 472 Theories of Arts and Performance
IAP 471 Language, Culture, and Performance
IAP 473 Aesthetic Research

Pool B (6 credit hours)
COM 321 Rhetorical Theory and Research
COM 324 Rhetoric and Media Criticism
COM 421 Rhetoric of Social Issues
COM 429 Semiotics and Visual Communications
COM 394/494 Special Topics (taught by current faculty in PRL or from the approved course topics in Philosophy, Rhetoric and Literature )
REL 300 Thinking, Writing \& Research in Religion and Applied Ethics
REL 301Comparative Mysticism
PHI 304Existentialism
REL 305Ritual, Symbol, and Myth
PHI 308Philosophy of Art
REL 314 Jewish Philosophy
REL 345 Asian Religious Traditions
REL/WST 390 Women and Religion
PHI 324/IAS 324 Existential Ethics
PHI 391Historical Perspectives on Philosophy and Religion
REL 405Problems in Religious Studies
PHI 394/REL 394Love in Philosophy
Enrollment Requirements: The certificate in philosophy, rhetoric and literature is open to all undergraduate majors.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/certificates/prl
FAB N230K and FAB N237
newcollegePRL@asu.edu
602-543-6049

## Public Administration and Public Management Certificate (PPPAFCERT)

Campus: DTPHX
Description: The certificate in public administration and public management prepares students for citizenship, leadership and careers in governmental and non-profit agencies. Students will learn the context and principles of public administration and how to apply these in a practitioner setting; the role of the public administrator in the design, implementation and evaluation of public policy; and how to lead change and address ethical issues in public service. It is designed for undergraduate students who are interested in developing leadership skills or wish to enhance their degree in an existing major at ASU, working adults who may wish to further their education yet may not be looking for a degree program, or B.I.S. students who seek to combine certificates with their degree.
The program is designed for students interested in public service who want to learn skills to:

- Analyze critical issues.
- Build and bridge communities.
- Deliver and manage public programs.
- Improve the quality of life.
- Lead change in public policy.
- Provide public safety.
- Preserve natural resources.
- Reform welfare.
- Strengthen democratic governance.

Program Requirements: The certificate in public administration and public management consists of 15 credit hours of course work. Students take 12 hours of core classes and three hours of elective courses. The three hours of elective course work may be selected from an approved list of elective classes, taken upon the recommendation of the department.
Core Courses
PAF 300 Public Management and Public Administration
PAF 340 Public Management and Policy

Enrollment Requirements: There are different application requirements, depending on your enrollment status with ASU. Students are also encouraged to schedule an appointment with the undergraduate academic adviser in the School of Public Affairs. Undergraduate Students Currently Enrolled at ASU
Current students interested in earning the certificate must complete a request to add an undergraduate certificate and return it to the undergraduate academic advisor in the School of Public Affairs at the University Center on the Downtown Phoenix campus. Students may begin taking courses before they formally register for the certificate; however, they are encouraged to complete the paperwork as soon as possible. Download application from http://students.asu.edu/node/1993.
Individuals Not Currently Enrolled at ASU
Individuals who are not currently enrolled as students at Arizona State University must complete an application to enroll as a nondegree seeking student before they may begin taking courses. For information on admissions and to complete an application, visit the university's nondegree student admissions page at http://students.asu.edu/non-degree-student-admission. Once students have been admitted, they are eligible to enroll in courses to complete the certificate program.

## Contact Information:

Public Programs, College of
School of Public Affairs
http://spa.asu.edu/new/undergrad/pa_mgt.htm
UCENT 400
spa@asu.edu
602-496-0450

## Religion and Conflict Certificate (LARELCERT)

## Campus: TEMPE

Description: The certificate may be of particular interest for students pursuing careers in journalism, law, policy work, diplomacy, the military, public advocacy, publishing, education, ministry or other fields in which an enhanced understanding of religion and conflict is increasingly vital.

Program Requirements: Students must complete 18 credit hours of qualifying course work (at least 12 hours from ASU and a minimum of 12 upper-division credit hours), consisting of regional, political and cultural components. To ensure that students are exposed to a wide variety of approaches to the study of religion and conflict, an interdisciplinary component requires that at least six of the 18 hours be fulfilled with courses from the humanities and at least three hours from the social sciences. In many cases, the same course can be used to fulfill several component requirements simultaneously.

- Regional component (6): courses in this category provide students specific regional knowledge of how religion has been implicated in human conflict. Required course work in at least two different regions fosters a comparative understanding of the dynamics of religion and conflict in historical and global contexts.
- Political component (3): courses in this category explore how religion influences, or is influenced by, matters of state, law, government or other dimensions of political life.
- Cultural component (3): courses in this category provide students with an understanding of how religion operates as a powerful force that impacts and intersects with expressions of human identity, thought and culture.
- Electives (6): any approved/qualifying course (either from the above categories or other approved classes) may be used as an elective to fulfill remaining requirements toward the total number of credit hours and to meet the interdisciplinary requirement.
- Of the total 18 credits taken to fulfill the certificate, at least three credits must be from the social sciences (SOC, POS, SGS, or WST) and six credits from the humanities (ARB, HST, POR, or REL).


## Religion and Conflict Course Offerings

A minimum grade of " $C$ " (2.00) is required for a course to fulfill a certificate requirement. For a current list of approved courses, see www.csrc.asu.edu.

Enrollment Requirements: Any ASU student may pursue the religion and conflict certificate. To enroll or for questions about the program, contact Professor John Carlson, thecertificate director.

## Contact Information:

Liberal Arts and Sciences, College of

Historical, Philosophical \& Religious Studies, Sch
http://www.csrc.asu.edu/education/undergraduate_certificate.html/
WHALL 130
csrc@asu.edu
480-965-7187

## Russian and East European Studies Certificate (LAREECERT)

Campus: TEMPE
Description: The certificate in Russian and East European studies encourages students to develop special competency in Russian or East European languages and area studies. Course work leading to the certificate is offered in agribusiness, architecture, biology, economics, Eurasian languages (Armenian, Tajik, Tatar, and Uzbek), geography, history, international business, music, political science, religious studies, Slavic and East European languages (Albanian, Bosnian/Croatian/Serbian, Macedonian, Polish, Romanian, and Russian), sociology and women's studies, but the certificate program is open to all students, regardless of major.
Certificate holders enhance their prospects for study abroad fellowships and graduate admissions, and also qualify for unique entrylevel government employment opportunities. Past certificate awardees have moved into positions of leadership in government, academia, and the private sector.

Program Requirements: The requirements for the Russian and East European studies certificate comprise 1) three years (22 credit hours) of Russian or another Eurasian or East European language, and 2) thirty credit hours (at least 24 upper-division credit hours)in Russian, East European and Eurasian area-related course work.
At least three disciplines must be represented in the area-related course work, and at least 12 credit hours must be outside the School of International Letters and Cultures (i.e., non-RUS, SLC, and SLV courses). Fulfillment of these requirements is certified by the Melikian Center for Russian, Eurasianand East European Studies and is recognized on the transcript as a certificate in Russian and East European studies. The purpose of this undergraduate certificate program is to encourage students majoring in a chosen discipline to develop special competency in Russian, Eurasian, or East European languages and area studies. A student with a major in any school or department may pursue this certificate.

Enrollment Requirements: Any student admitted to study at ASU may pursue a certificate program. In order to apply to study at ASU, complete the Office of Admission online application. Please contact the Melikian Center for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://melikian.asu.edu/
COOR 4448
melikiancenter@asu.edu
480-965-4188

## Small Business and Entrepreneurship Certificate (BASMBCERT) Campus: TEMPE

Description: Students learn how to launch their own business or work with small or startup operations. Courses include small business, entrepreneurship and business plan development. Classroom work is complemented by frequent interaction with successful founders and leaders of entrepreneurial ventures.

Program Requirements: This certificate in small business and entrepreneurship is available only to business majors at ASU. The certificate requires 15 credit hours of classes, including the following six credit hours:
MGT 440 Entrepreneurship (3)
MGT 445 Business Plan Development (3)
The remaining nine credit hours consist of three additional upper-division courses relevant to small business. A copy of the approved electives for business majors pursuing the certificate in small business and entrepreneurship is available in the undergraduate programs office, BA 109. To receive the certificate, students must complete the specified business courses with a grade of "C" ( 2.00 on a scale of 4.00) or higher.

Enrollment Requirements: Students need to complete an application, which is available online or in BA 109. Please contact the department for more information and also see http://wpcarey.asu.edu/undergraduate/current-students/academics/small-businesscertificate.cfm (then click on the embedded link "course requirements for the Small Business and Entrepreneurship Certificate").

## Contact Information:

Business, W. P. Carey School of
Dean, W.P. Carey School of Business
https://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Socio-Legal Studies Certificate (LASLSTCERT)

Campus: TEMPE

Description: The undergraduate certificate in socio-legal studies offers a model for educating and training students in the study of legal ideas, institutions and practices from the perspectives of the social sciences, law, and the humanities. The distinction between law "on the books" and law "in action," which refers to how people experience law in their everyday lives, is a cornerstone of the certificate program. Course work provides students with multiple and intersecting theoretical and methodological approaches that reveal law as a socially embedded system of loosely connected institutions, practices, presumptions and rules. Students participating in the certificate program will learn how to apply these socio-legal tools of analysis to their study of law in action.

Program Requirements: The certificate consists of four components to ensure students develop a broad understanding of sociolegal studies. Foundational courses in socio-legal theories (three credits) and in legal institutions (three credits) will be required. Students will then have the option of selecting three electives (nine credits) from a set of approved courses, providing flexibility so that they may pursue an individualized course of study. Additional courses beyond those listed on this proposal may be added with approval of the certificate director. Finally, a three credit experiential learning component will be required, for a total of 18 credit hours. This may be an internship within the U.S. or abroad, or a research experience under the guidance of a member of the sociolegal studies certificate faculty.
Please consult the certificate program advisor for a list of approved courses in each area.

Enrollment Requirements: Students who have attained junior standing (56 credit hours) in any undergraduate degree program at ASU are eligible for admission to the certificate in socio-legal studies. There are no formal admissions procedures, but students should contact the certificate in socio-legal studies program director or advisor as soon as they decide to pursue the certificate.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://justice.clas.asu.edu
WILSN 125
justiceinfo@asu.edu
480-965-7682

## Southeast Asian Studies Certificate (LASALCERT) Campus: TEMPE

Description: The certificate in Southeast Asian studies can supplement a bachelor's degree, demonstrating knowledge of a Southeast Asian language and knowledge of Southeast Asian history, art, culture and society.
This certificate prepares students for admission to graduate programs in Southeast Asian-area studies or in an academic discipline with a focus on Southeast Asia, or foradvanced programs in international law, journalism, business or other professional fields. Recent graduates have gone on to enter medical school, M.B.A. programs and doctoral programs. An earned certificate will appear on student transcripts as a Southeast Asian studies emphasis.

Program Requirements: A certificate in Southeast Asian studies is available to any undergraduate student. The certificate program requires a simultaneous two-year sequence in a Southeast Asian language (Indonesian, Thai or Vietnamese) and 18 credit hours, including the three courses listed below plus two electives (selected from an approved list) and a 3-credit capstone project. ASB/GCU/HST/POS/REL 240 Introduction to Southeast Asia
ASB 325 Peoples of Southeast Asia
HST 391 Modern Southeast Asia

Enrollment Requirements: There are no specific admission requirements other than a student's desire to learn about Southeast Asia. A minimum grade of " $C$ " (2.00) is required for each course that is used to fulfill the certificate requirements. Please contact the department for more information: http://www.asu.edu/clas/asian/certificate.html.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://www.asu.edu/clas/asian/
COOR 3rd floor advising center
SHPRSadvising@asu.edu
480-965-8364

## Spanish for the Professions Certificate (LSSPPRFCER)

## Campus: DTPHX

Description: The series of courses in this 18 -credit-hour certificate will help students hone Spanish communication skills and cultural knowledge to serve the needs of the U.S.-Latino community in professional settings (i.e., education, social work, health care, criminology, journalism). This program is only offered on the ASU Downtown Phoenix campus and is open to current ASU students as well as members of the community. The combination of professionally focused courses and practical experience in this certificate will enhance students' professional skills in positions that require advanced proficiency in Spanish and in-depth understanding of U.S.-Latino culture.

Program Requirements: Pre-requisite: SPA 314/316 or permission of instructor.
SPA 494/401
SPA 494/402
SPA 494/403*
SPA 494/404*
SPA 494/405*
SPA484/SPA 499**
Internship or Independent Study
*Pre-requisite: SPA 494 Spanish Oral/Written Communication for the Professions or permission of the instructor.
**Pre-requisite: A minimum of 12 credit hours completed in this certificate and permission of the instructor.
All courses for this certificate will require a minimum grade of " $C$ " (2.00) or better to get credit toward fulfilling minor requirements.
Enrollment Requirements: For additional admission and registration requirements, please visit the school's website.

## Contact Information:

Letters and Sciences, School of
School of Letters \& Sciences
http://sls.asu.edu/lc/spanish/certificate.html
UCENT 300
sls@asu.edu
602-496-4000

## Special Events Management Certificate (HSRTMUERT)

Campus: DTPHX
Description: The special events management certificate is a career enhancement program offered to nondegree-seeking students or those who already have a degree from an accredited university in any major, or students currently pursuing a bachelor's degree in any major.

Program Requirements: The certificate requires a total of18 credit hours,fifteen credit hours of required core courses and three credits of electives. Courses taken as part of a university major may count towards both that degree and the certificate. To earn the certificate, students must complete all course work in the certificate with a minimum grade of "C" or better. An application to the program is required.
Required core courses (15)

PRM 486 Special Events Management (3)
PRM 422 Entertainment, Protocol and Programming for Special Events (3)
PRM 423 Special Event Operations and Site Design (3)
PRM 427 Revenue Generation for Special Events Management (3)
PRM 488 Business Practices for Special Events Management (3)

Elective courses (3)
TDM 205 Introduction to Travel and Tourism (3)
NLM 310 Volunteer Management (3)
TDM 350 Tourism Marketing (3)
TDM 345 Meeting and Convention Planning (3)
PRM 475 Entrepreneurial Recreation and Tourism (3)
PRM 487 Special Events Management Advanced (3)

Standards

- A minimum "C" (2.00) grade required for all classes in the certificate.
- A minimum GPA of 2.00 for those pursuing the certificate.
- Eighteenhours of graded classroom coursework (no internship, no independent study).
- Must be a junior to take 400 -level courses.

Enrollment Requirements: Student wishing to pursue the special events management certificate should consult with an academic advisor in the School of Community Resources and Development. For additional information, please visit the official website.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 500
scrd@asu.edu
602-496-0550

## Speech-Language Pathology Assistant Certificate (LASLPACERT)

Campus: TEMPE

Description: The Speech-Language Pathology Assistant (SLPA) certificate prepares students to work with individuals with communication disorders under the direction of a speech language pathologist (SLP). Students majoring in speech and hearing science or persons already holding a bachelor's degree in speech and hearing science receive additional coursework and clinical training to be eligible for SLPA licensure and for positions working under the direction of an SLP in schools, clinics and rehabilitation agencies that provide speech and language services.

Program Requirements: The SLPA certificate includes 15 credit hours of coursework and clinical internships completed in conjunction with the bachelor's in speech and hearing science. The student must take SHS 402, 473 and 483 and complete two internships of clinical practice (SHS 484). Twelve of the 15 credit hours for the SLPA certificate must be completed at ASU. A minimum grade of " $\mathrm{B}-$ " is required for a course to count toward the certificate.

Enrollment Requirements: Students who have completed 15 credit hours in speech and hearing science coursework with at least a 2.75 grade point average in those courses are eligible to apply. Applications will also be accepted from students who have completed a bachelor's degree in speech and hearing science or communication disorders from a program accredited by the American Speech-Language-Hearing Association (ASHA), providing their grade point average in the major was at least 2.75. Please contact the Department of Speech and Hearing Science for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Speech and Hearing Science
http://shs.asu.edu/slpa
COOR 2211

## Symbolic Systems Certificate (LAPHICERT)

Campus: TEMPE
Description: The School of Historical, Philosophical and Religious Studiesoffers a certificate in symbolic systems. The certificate program takes an interdisciplinary approach to cognition, computation and meaning.
Course work is divided evenly between philosophy, psychology and computer science in order to expose students to the subject matter from a conceptual, empirical and practical point of view.
The certificate may interest students with majors in any of the three disciplines, or students who wish to add breadth to their degree through work in other disciplines, on topics of common interest.

Program Requirements: The certificate in symbolic systems consists of 28 credit hours approved by an advisor in the School of Historical, Philosophical and Religious Studies as follows:
CSE 200, 210 and 240
PSY 230 and 290 and either PSY 323, 324 or 437
One of either PHI 319 or 333
Either PHI 315 or 317
Either PHI 312 or 314
With approval from the director of undergraduate studies in the philosophy, substitution courses from outside this list may be allowed.
All courses must be passed with a minimum grade of " $C$ " (2.00).
Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact theSchool of Historical, Philosophicaland Religious Studies advising centerfor more information.

## Contact Information:

Liberal Arts and Sciences, College of Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/symbolic_systems
COOR
SHPRSadvising@asu.edu
480-965-8364

## Technical Communication Certificate (LSTECCERT)

## Campus: DTPHX

Description: Through the technical communication program, students learn how to produce, design and manage information, using both traditional and developing technologies

Program Requirements: The undergraduate certificate requires 18 hours. The following courses are required:
TWC 301 General Principles of Multimedia Writing
TWC 401 Principles of Technical Communication
Choose one of the following courses:
TWC 411 Principles of Visual Communication
TWC 421 Principles of Writing with Technology
TWC 431 Principles of Technical Editing
Choose three other 400-level TWC courses, of which at least two must be genre or information courses, such as TWC 443 Proposal Writing or TWC 452 Information in the Digital Age.

Enrollment Requirements: The certificate is available to all admitted undergraduate students (regular or nondegree) at ASU. Once students have been admitted, they are eligible to enroll in courses to complete the certificate program. Applications are accepted throughout the year.

Please contact the school for more information.
For U.S. Department of Education Gainful Employment Program Disclosure information, see http://catalog.asu.edu/files/shared/GE Disclosure ECTWCCERT.pdf.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Dean, Ira A. Fulton Schools of Engineering
http://engineering.asu.edu/entrepreneurship
BYENG 696
engineering@asu.edu
480-965-8211

## Technical Communication, Post Baccalaureate Certificate (LSTECGRCT)

Campus: DTPHX

Description: Through the technical communication program, students learn how to produce and communicate technical information, using both traditional and digital technologies.

Program Requirements: The post-baccalaureate certificate requires 18 hours, including the following classes:
TWC 501 Principles of Technical Communication
Choose two of the following courses:
TWC 511 Principles of Visual Communication
TWC 521 Principles of Writing with Technology
TWC 531 Principles of Technical Editing
Choose three other 500-level TWC courses, of which at least two of which must be genre or information courses, such as TWC 543 Proposal Writing or TWC 552 Information in the Digital Age.

Enrollment Requirements: Students must be admitted to ASU with graduate standing-either in another graduate program or as a nondegree-seeking graduate student. Please contact the department for more information and see http://techcomm.asu.edu/degrees.shtml.

For U.S. Department of Education Gainful Employment Program Disclosure information, seehttp://catalog.asu.edu/files/shared/GE Disclosure ECTWCGRCT.pdf.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://techcomm.asu.edu/
SANCA 233
SAAS@asu.edu
480-727-1526

## Technology Entrepreneurship Certificate (ESTNECERT)

## Campus: TEMPE

Description: Engineers and scientists around the globe launch high-tech companies to move their ideas to the market. Studies show that the majority of innovative products and services in the economy evolve from entrepreneurial ventures. By providing knowledge and skills important to the creation and leadership of such startups, the certificate program in technology entrepreneurship aims to train the founders and leaders of tomorrow's high-tech ventures. The certificate program is designed specifically for engineers. Courses are approached from the perspective of the student whose primary interest is in technological innovation, whose primary concentration is engineering and who has little or no prior business education.

Program Requirements: This 15-credit-hour certificate program is limited to students in the Ira A. Fulton Schools of Engineering and is designed to help technically oriented students analyze, launch and operate an entrepreneurial venture. The certificate program in technology entrepreneurship requires that students enroll in and complete five courses. Admission to the cohort portion of the certificate program can only occur after successful completion of the introduction course, FSE 301 Entrepreneurship for Engineers
(prerequisite: junior standing in a bachelor's program in the Ira A. Fulton School of Engineering). Once admitted to the certificate program, students must also successfully complete the remaining certificate courses:
FSE 400 Creating and Launching a Technology Venture
FSE 401 Intellectual Property for a Technology Venture
FSE 402 Operating a Technology Venture
FSE 403 Entrepreneurship Practicum
Enrollment Requirements: The qualifications for admission to the certificate in technology entrepreneurship program are having junior standing in a bachelor's program in the Ira A. Fulton Schools of Engineering and successful completion of the selection interview process.
The selection interview process consists of two parts, 1) a letter of intent written by the student to the selection committee, and 2) a live interview with the selection committee, which consists of at least one faculty member, one entrepreneurship program advisory board member and one member of the regular engineering faculty.
Each selection interview is conducted according to a fixed format, with each certificate program candidate having the opportunity to respond to the same set of questions. Please contact the department for more information.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Dean, Ira A. Fulton Schools of Engineering
http://engineering.asu.edu/entrepreneurship
BYENG 696
engineering@asu.edu
480-965-8211

## Translation Certificate (LASPACERT)

## Campus: TEMPE

Description: The translation certificate program is designed to provide:

- Advanced training required for professional translation in both public and private sectors.
- Preparation for the rigorous examinations required by national and international agencies.
- Training as an ancillary skill for professional fields, such as international business, public health, medicine and law, in accordance with guidelines recommended by the American Translators Association.

Program Requirements: The certificate program consists of the following requirements:

## Prerequisites

SLC 400 Linguistics, SB (3) or SPA 400 Introduction to Spanish Linguistics (3) or equivalent SPA 412 Advanced Conversation and Composition, G (3)
Required

- SLC 401 Translation Theory and Practice (3)
- In-service practicum, SLC 484 Internship (2)

Also required are nine hours of applied translation electives in specialized areas chosen from the following courses:
SLC 481 Technical and Scientific Translation (3)
SLC 482 Business and Financial Translation (3)
SLC 483 Medical and Legal Translation (3)
SLC 485 Problems of Literary Translation (3)

Enrollment Requirements: Since entrance to professional translation is through work, cultural experience and examination, the entrance requirements to this certificate program are 1) a written proficiency examination in the source and the receptor languages at the level of completion of an advanced composition course in Spanish (SPA 412) and English (ENG 301), and 2) extensive work experience using Spanish and English, or demonstrated bilingual writing competence in English and Spanish.
Please contact the school for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/certificates
LL 440
silc@asu.edu
480-965-6281

## Women and Gender Studies Certificate (LAWSTCERT)

Campus: TEMPE
Description: Women and gender studies, in the School of Social Transformation provides students with an intensive interdisciplinary liberal arts education that enables them to write well, think critically and analyze problems effectively. The certificate program is equivalent to an interdisciplinary minor.

Program Requirements: The certificate program consists of 18 credit hours, 12 of which must be upper-division courses. Students pursuing a certificate in women and gender studies must consult with the women and gender studies advisor to select appropriate courses and fulfill requirements. A certificate of concentration in women and gender studies is awarded for the successful completion of WST 100 (or WST 300) and WST 377, or WST 378 and an additional 12 credit hours from the list of approved women and gender studies courses.

Enrollment Requirements: Any student admitted to study at ASU may complete a certificate. To apply to the university, please complete the Office of Admissions online application. Please contact the women and gender academic specialist in the school for more information.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://wgs.asu.edu/
WHALL 205
wgs.asutempe@asu.edu
480-965-2358

## Women's Studies Certificate (ASWSTCERT)

Campus: WEST
Description: The certificate in women's studies, within the New College of Interdisciplinary Arts and Sciences, is an interdisciplinary program emphasizing intersectional approaches to the study of gender, race, class, ethnicity, and sexuality in national and transnational contexts.

Program Requirements: The women's studies certificate consists of 18 credit hours of course work, of which 15 credit hours must be upper division (300-400 level).
Core requirements (9 credit hours):

WST 100, Women, Gender, and Society, SB, C (3) or WST 300, Women and Gender in Contemporary Society, SB, C (3)
WST 380, Race, Gender, and Class, SB, C (3)
WST 498, PS: Theory and Methods in Women and Gender Studies, L (3)
WST electives (9 credit hours).
Enrollment Requirements: The certificate in women's studies, within the New College of Interdisciplinary Arts and Sciences, is an interdisciplinary program emphasizing intersectional approaches to the study of gender, race, class, ethnicity and sexuality in national and transnational contexts. The women's studies certificate is recommended for graduate students, nondegree students and students majoring in professional programs.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/certificates/womenstudies
FAB N201
harcs.dept@asu.edu

## Writing Certificate (LAENGCERT)

## Campus: TEMPE

Description: The writing certificate is a declaration from ASU that a student has completed advanced writing instruction. It certifies that the student has had the training to be a successful writer in his or her chosen profession.

Program Requirements: The writing certificate consists of 19 credit hours. Required courses are as follows:
ENG 216 Persuasive Writing on Public Issues, L (3), or ENG 412 Creative Nonfiction (3)
ENG 301 Writing for the Professions, L (3)
ENG 372 Document Production, L (3)
ENG 472 Rhetorical Studies, L (3)
ENG 484 Internship: Writing Certificate (3)
ENG 498 Pro-Seminar: Writing Certificate Portfolio (1)
Also required is an additional writing course in English (three hours) or a writing or design course (three hours) selected from an approved list of courses from across campus. All students are required to submit a portfolio before receiving the certificate.

Enrollment Requirements: Application to the program requires a minimum GPA of 3.00 in ENG 101 and 102, 105, or 107 and 108. Students must also have completed at least 30 hours of course work and must have a minimum cumulative GPA of 3.00 . Please contact the department for more information.

## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://english.clas.asu.edu/writingcertificate
LL 542
englishadvising@asu.edu
480-965-3168

## Writing Program Certificate (ASWRTCERT)

Campus: WEST
Description: Comprised of a minimum of 19 credit hours, the writing certificate combines intensive course work (of which at least 12 credit hours must be upper division) and an exit portfolio. Students will choose one of five track options:

- Creative writing.
- Generalist.
- Professional and technical writing.
- Publishing and editing.
- Nonfiction writing.

Exit portfolio: Students will assemble a portfolio of writing that demonstrates their grasp of the skills presented during their course of studies.

Program Requirements: To gain admission to the writing certificate students must demonstrate fundamental writing skills through the completion of English composition (101/102, or $107 / 108$, or 105 ) with grades of " $B$ " (3.00, on a scale of 4.00 ) or higher. Students are required to submit an application, which includes at least three samples of writing from lower-division courses or independent writing projects. Applications must be submitted at least two months before the start of the semester they anticipate being admitted.

Enrollment Requirements: The Division of Humanities, Arts and Cultural Studies offers this program to students enrolled in any unit of any college at ASU. Certification of advanced writing skills opens the way to a vast array of opportunities, from journalism and publishing to public advocacy, military and government careers, elementary and secondary education, business management, economic development, the law and high-tech industry. Ability to communicate clearly and directly is a key to career advancement in all aspects of business, government and community service.

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/certificates/writing
FAB N201
harcs.dept@asu.edu
602-543-4444

## Undergraduate Programs

## Undergraduate Degrees (Program Descriptions)

Business, W. P. Carey School of

## Accountancy, BS (BAACCBS)

Campus: TEMPE, WEST

Program Description: The School of Accountancy's undergraduate program has two possible tracks during the senior year. The Accounting Bachelor of Science track is followed by most students and is designed to provide a rich educational experience. The Accounting Scholars Program track is designed for our most highly qualified students who wish to commit during the second semester of their junior year (and are accepted) into the Master of Accountancy Program at ASU or the Master of Taxation program; it provides them a particularly rich and individualized educational experience during their senior and fifth years. It includes a number of distinct advantages for students:

- A spring internship experience.
- Increased personal interaction among students, faculty and staff.
- Possible reduced overall tuition costs through scholarships.

Further details on the accounting scholars track are available at the school website.
Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 210 Brief Calculus.
Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business B.A. programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business B.S. major and who did not select a second major or are not admissible to their second major choice will be placed in a Business B.A. program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1,160 SAT score OR 25 ACT score OR graduated in the top 8th percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business B.A. programs or any other business or other degree program outside W. P. Carey School of Business.
Students with fewer than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: The major in accountancy includes the essential academic preparation for students who are:

- Planning to pursue a graduate degree or attend law school.
- Pursuing professional careers in public, corporate and governmental accounting.
- Seeking positions in consulting; planning to operate their own businesses.
- Seeking positions in personal financial planning and portfolio analysis.

The job outlook for accounting graduates is excellent. The U.S. Bureau of Labor Statistics' Occupational Outlook Handbook (20082009) states, "Employment of accountants and auditors is expected to grow by 18 percent between 2006 and 2016, which is faster than the average for all occupations."

## Contact Information:

Business, W. P. Carey School of

School of Accountancy
http://wpcarey.asu.edu/accounting/index.cfm
BA 223Q
wpcareyacc@asu.edu
480-965-3631

## Business (Communication), BA (BABUSCBA) <br> Campus: ONLNE, POLY, TEMPE, WEST

Program Description: The B.A. in business with a concentration in communication is an innovative, interdisciplinary program intended to prepare students for positions in a variety of professions in which business and communication play an important role in ensuring success. Graduates of this program will have specific knowledge of business practices and the capacity to effectively communicate complex business information. Students in this program will complete rigorous courses within the communication concentration in addition to the skill and core courses required of all W. P. Carey School of Business majors.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Admission Requirements: Freshman and transfer students must submit either an SAT Reasoning test score or an ACT test score by the end of the first semester in the program (we do not require the writing portion of these tests). There is no minimum score requirement.
Freshman admission requirements for this program are the same as the university's freshman admission requirements. Transfer applicants must have a 3.00 GPA for all transfer work and meet university transfer admission requirements. Transfer students should select an additional major, which must be outside W. P. Carey School of Business, when applying for admission. Students with fewer than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Eastern Arizona College, Maricopa County Community College District.

Career Opportunities: Business communication has exploded as a distinct professional field as companies require rapid and considered responses, from conveying ordinary information to crisis communications. Historically these positions have been staffed with people trained in communication, English, journalism or other fields who lack specific business knowledge. Graduates of this program will be qualified to enter these positions with knowledge that will be immediately useful to potential employers while advancing their careers.

## Contact Information:

Business, W. P. Carey School of
W. P. Carey School of Business
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Business (Global Politics), BA (BABUSGPBA)

Campus: TEMPE
Program Description: The program incorporates solid business skills and global understanding in order to prepare students to realize and analyze the relationship between business and social science. Students in this program will complete the rigorous courses within the global politics concentration in addition to the skill and core courses required of all W. P. Carey School of Business majors.

Additional Program Fee: Y .
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshman and transfer students must submit either an SAT Reasoning test score or an ACT test score by the end of the first semester in the program (we do not require the writing portion of these tests). There is no minimum score requirement.
Freshman admission requirements for this program are the same as the university's freshman admission requirements. Transfer applicants must have a 3.00 GPA for all transfer work and meet university transfer admission requirements. Transfer students must select an additional major, which must be outside W. P. Carey School of Business, when applying for admission. Applicants not meeting requirements for this program but who do meet university minimum requirements for transfer studies will be admitted to their second choice.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: Students completing the global politics concentration will think critically about global problems and integrate inquiry and action in order to become responsible leaders. These students will be prepared to successfully launch careers in many fields including:

- Campaign and issue management.
- Information analysis.
- Public relations.


## Contact Information:

Business, W. P. Carey School of
W. P. Carey School of Business
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Business (Law), BA (BABUSLBA)

Campus: TEMPE

Program Description: The B.A. in business with a concentration in law is an innovative, interdisciplinary program intended to prepare students for positions in a variety of professions in which business and law play an important role in ensuring success. Coupled with a strong business background, the law concentration will give students a systematic framework for analyzing realworld legal regulation and corresponding business risks and liabilities. Students in this program will complete rigorous courses within the law concentration in addition to the skill and core courses required of all W. P. Carey School of Business majors.

## Additional Program Fee: Y.

Second Language Requirement: $N$.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshman and transfer students must submit either an SAT Reasoning test score or an ACT test score by the end of the first semester in the program (we do not require the writing portion of these tests). There is no minimum score requirement.
Freshman admission requirements for this program are the same as the university's freshman admission requirements.
Transfer applicants must have a 3.00 GPA for all transfer work and meet university transfer admission requirements. Transfer students should select an additional major, which must be outside W. P. Carey School of Business, when applying for admission. Students with fewer than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: The law concentration is designed to expose students who will pursue careers in the business world to aspects of law and legal issues relevant to their career goals. Graduates of this program will be prepared to use their skills in a variety of industries ranging from new business ventures to corporate or agency compliance.

## Contact Information:

Business, W. P. Carey School of
W. P. Carey School of Business
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Business (Public Service and Public Policy), BA (BABUSPBA)

Campus: TEMPE
Program Description: The concentration in Public Service and Public Policy (PSPP) prepares students for work in public, nonprofit, and private sectors through comprehensive coverage of topics in public policy and public administration. Students will become familiar will leading a public organization and the process of policy development. The program also enables students to examine the public sector through multiple lenses and address the challenges it faces in a practical way. Graduates are prepared for professional careers in public service, and the program offers preparation for students who wish to pursue graduate degrees in public administration, public policy, law, nonprofit administration, or other public service and policy-oriented areas.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshman and transfer students must submit either an SAT Reasoning test score or an ACT test score by the end of the first semester in the program. We do not require the writing portion of these tests. There is no minimum score requirement.
Freshman admission requirements for this program are the same as the university's freshman admission requirements. Transfer applicants must have a 3.00 GPA for all transfer work and meet university transfer admission requirements. Transfer students should select an additional major, which must be outside W. P. Carey School of Business, when applying for admission. Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Pima Community College, Yavapai College.

Career Opportunities: Increasing demand for public services and retiring baby boomers have created an increase in job opportunities for graduates in the public sector. The Partnership for Public Service estimates that the federal government alone will hire nearly 273,000 new employees by 2012 for mission-critical positions.

## Contact Information:

Business, W. P. Carey School of
W. P. Carey School of Business
http://wpcarey.asu.edu/undergraduate/index.cfm
BA 109
wpcareyug@asu.edu
480-965-4227

## Business (Sustainability), BA (BABUSSBA)

Campus: TEMPE, WEST

Program Description: The B.A. in business with a concentration in sustainability is an innovative, interdisciplinary program intended to prepare students for positions in a variety of professions in which business and sustainability play an important role in ensuring success. Finding ways to grow and prosper while reducing the stress on the global environment is a critical issue facing today's society. Combining the latest trends in business with cutting-edge knowledge of sustainability prepares graduates to excel in a career area that will dramatically increase in demand. Students in this program will complete rigorous courses within the sustainability concentration in addition to the skill and core courses required of all W. P. Carey School of Business majors.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshman and transfer students must submit either an SAT Reasoning test score or an ACT test score by the end of the first semester in the program (we do not require the writing portion of these tests). There is no minimum score requirement.
Freshman admission requirements for this program are the same as the university's freshman admission requirements.
Transfer applicants must have a 3.00 GPA for all transfer work and meet university transfer admission requirements. Transfer students should select an additional major, which must be outside W. P. Carey School of Business, when applying for admission. Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: Interest in sustainability issues is growing and, most likely, will be increasingly important to business in the next few years. Businesses around the world are asking serious questions about how they can understand, evaluate and act on issues related to sustainability while making sensible business decisions for both the short and long run. They seek qualified individuals who understand the societal, scientific and business aspects of the issues. Graduates from this degree program will fill these needs.

## Contact Information:

Business, W. P. Carey School of
W. P. Carey School of Business
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Business (Tourism), BA (BABUSTBA) <br> Campus: TEMPE, WEST

Program Description: The B.A. in business with a concentration in tourism is an innovative, interdisciplinary program intended to prepare students for positions in a variety of professions in which business and tourism play an important role in ensuring success. Developing tourism and recreation opportunities requires an understanding of effective marketing techniques and the ability to interact with many different types of businesses that support those efforts. A solid academic preparation in business will help prepare you for success in the tourism industry and affiliated professions. Students in this program will complete rigorous courses within the tourism concentration in addition to the skill and core courses required of all W. P. Carey School of Business majors.

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Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
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Admission Requirements: Freshman and transfer students must submit either an SAT Reasoning test score or an ACT test score by the end of the first semester in the program (we do not require the writing portion of these tests). There is no minimum score requirement.

Freshman admission requirements for this program are the same as the university's freshman admission requirements. Transfer applicants must have a 3.00 GPA for all transfer work and meet university transfer admission requirements. Transfer students should select an additional major, which must be outside W. P. Carey School of Business, when applying for admission. Students with fewer than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: Tourism management and development combines marketing and economic development, with emphasis on managerial understanding to promote smooth operations. The combination of skills acquired from exposure to both business and tourism courses will make these graduates more marketable and productive in their careers.

## Contact Information:

Business, W. P. Carey School of
W. P. Carey School of Business
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Business (Urban Policy), BA (BABUSUBA)

Campus: TEMPE, WEST
Program Description: The B.A. in business with a concentration in urban policy is an innovative, interdisciplinary program intended to prepare students for positions in a variety of professions in which business and urban policy play an important role in ensuring success. Economic development and urban planning are inextricably linked. The urban policy concentration will prepare you to address many of the challenges of rapid urban growth. Students in this program will complete rigorous courses that focus on the complexity and range of issues affecting the quality of urban planning and development in addition to the skill and core courses required of all W. P. Carey School of Business majors.

## Additional Program Fee: Y .

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Admission Requirements: Freshman and transfer students must submit either an SAT Reasoning test score or an ACT test score by the end of the first semester in the program (we do not require the writing portion of these tests). There is no minimum score requirement.
Freshman admission requirements for this program are the same as the university's freshman admission requirements.
Transfer applicants must have a 3.00 GPA for all transfer work and meet university transfer admission requirements. Transfer students should select an additional major, which must be outside W. P. Carey School of Business, when applying for admission. Students with fewer than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: Historically, urban planners have had little business background, but function in a system where business success is a key ingredient in high-quality, dynamic, urban policy. Graduates with a B.A. in business with an urban policy concentration will be equipped to deal with the wide range of economic and business development issues.

## Contact Information:

Business, W. P. Carey School of
W. P. Carey School of Business
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Business Exploratory, Pre-Prof/E (BABUSEXP)

Campus: TEMPE

Program Description: Virtually every profession and organization uses business in some way. Business exploratory students have an opportunity to explore a variety of areas in business prior to selecting one of our seven majors:

- Accountancy.
- Computer information systems.
- Economics.
- Finance.
- Management.
- Marketing.
- Supply chain management.

Students have an opportunity to work with world-class faculty in an environment that values high quality teaching. Our majors provide students with the skills and knowledge needed in today's companies - whether they are starting their own businesses or working in large multinational corporations. Additionally, many graduates attend some of the best graduate schools in the country in a variety of disciplines.

Additional Program Fee: $N$.
Second Language Requirement: $N$.
First Required Math Course: MAT 210 Brief Calculus.
Admission Requirements: This major has higher admission standards. To be admitted, freshmen need a 1160 SAT Reasoning score OR 25 ACT score, OR they must be among the top eight percent of their graduating high school class.
Transfer students (with 30 or more semester hours of credit after high school) must have a 3.00 GPA or higher, AND an SAT Reasoning score of 1160 OR a ACT score of 25 OR graduated in the top eight percent of their high school class.

Career Opportunities: Students in business exploratory will graduate from one of seven degrees in the W. P. Carey School of Business. See those degrees for career opportunities.

## Contact Information:

Business, W. P. Carey School of
Prebusiness Office
http://wpcarey.asu.edu
BA 109
wpcareyug@asu.edu
480-965-4227

## Computer Information Systems, BS (BACISBS)

Campus: POLY, TEMPE, WEST

Program Description: With a degree in computer information systems, your career choices are limitless. CIS is part of every business and organization. Invest in a degree that teaches you about the exciting and innovative ways that information technology is used to help organizations succeed. Currently there is a shortage of information systems professionals, and many more jobs than graduates. With the help of our dedicated faculty, you will learn how to design, build and maintain information systems that support both business operations and managerial decision-making. In particular, you will learn about:

- Business intelligence for competitive advantage.
- Business process for workflow redesign.
- Data management for decision making.
- Distributed systems for collaboration and globalization.
- Enterprise integration for synergy.
- Project management.
- Solution development for value creation.

This is your opportunity to join a team of motivated students and become part of one of the nation's highest ranked computer information systems departments.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business BS major and who did not select a second major or are not admissible to their second major choice will be placed in a Business BA program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1160 SAT score OR 25 ACT score OR graduated in the top eight percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business.
Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A computer information systems degree offers job opportunities in a variety of industries, including:

- Education.
- Entertainment.
- Finance.
- Health care.
- National defense.
- Transportation.

Information systems are a key component in the success of other functional business areas such as accounting, supply chain, finance and marketing. Entry-level information systems positions include:

- Computer forensics analyst.
- Database administrator.
- Systems analyst.
- Information systems consultant.
- Information technology security manager.
- Network administrator.
- Project manager.
- Software/systems developer.
- Systems administrator.

Long-term career aspirations for a student with a computer information systems degree include:

- Chief executive officer.
- Chief information officer.
- Chief knowledge officer.
- Chief technology officer.
- Chief security officer.


## Contact Information:

Business, W. P. Carey School of
Department of Information Systems
http://wpcarey.asu.edu/information-systems/undergraduate/index.cfm
BA 301P
wpcareyis@asu.edu
480-965-3252

## Economics, BS (BAECNBS)

## Campus: TEMPE, WEST

Program Description: The program requires a strong core of economic theory, supplemented by mathematics and data analysis. Students in our B.S. program choose from a variety of electives within the department, as well as in the W. P. Carey School of Business and the university. All students are encouraged to develop programs of study tailored to their individual needs and interests. The department's undergraduate program aims to provide students with the critical thinking and communication skills needed to succeed in business or graduate school. The mission of the Department of Economics at Arizona State University is to provide the highest quality instruction to our students, conduct cutting-edge research in economics, and provide leadership and service to our professional communities.

Additional Program Fee: Y.
Second Language Requirement: N .
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business BS major and who did not select a second major or are not admissible to their second major choice will be placed in a Business BA program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1160 SAT score OR 25 ACT score OR graduated in the top eight percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business.
Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: A major in economics provides students with the analytical and quantitative skills needed to prepare them for careers in business, government or public policy. The program of study can also be tailored to prepare students for graduate programs in economics, business or law. Students interested in pursuing a Ph.D. in economics are strongly encouraged to minor or major in mathematics as well.
Graduates have taken positions:

- As consultants who serve as advisers to state and federal governments as well as private corporations.
- As corporate economists who collect data and make forecasts relevant to the firm's business.
- In banking and financial services firms.

Each year many graduates pursue studies at some of the best graduate schools in the country.

## Contact Information:

Business, W. P. Carey School of
Department of Economics
http://wpcarey.asu.edu/ecn
BAC 659
wpcareyecn@asu.edu
480-965-3531

## Finance, BS (BAFINBS)

Campus: TEMPE, WEST

Program Description: The finance department has a rich tradition of educating leaders that excel in all aspects of the discipline of finance. Whether ascending to the top ranks of the venture capital industry, executing multimillion-dollar real estate deals, or becoming successful entrepreneurs with ideas and drive that are all their own, our graduates are equipped to succeed.
In particular, our Investment Banking Industry Scholars Program mentors students interested in going to Wall Street. Our student investment management fund provides undergraduates the opportunity to manage a real-world investment portfolio worth hundreds of thousands of dollars.
The faculty is considered among the top finance departments in the world. Our professional advisory board, comprised of leading professionals from the financial services, manufacturing, energy, investment banking and real estate sectors, provides a sounding board for new ideas and a source of jobs for our top graduates.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business BS major and who did not select a second major or are not admissible to their second major choice will be placed in a Business BA program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1160 SAT score OR 25 ACT score OR graduated in the top eight percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business.
Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: Students majoring in finance are prepared for careers in:

- Consulting.
- Corporate financial management.
- Depository institutions.
- Financial services.
- Investment banking.
- Investment management.
- Portfolio analysis.


## Contact Information:

Business, W. P. Carey School of
Department of Finance

## Management, BS (BAMGTBS)

Campus: POLY, TEMPE, WEST
Program Description: The B. S. in management prepares students to become effective managers and team leaders by providing theoretical and conceptual knowledge, and building critical skills such as:

- Analytical research and problem solving.
- Communication.
- Critical thinking.
- Global applications.
- Leadership.
- Personal ethics and integrity.
- Teamwork.

The curriculum includes the fundamentals of the global economy, the world of e-business, ethics, human resource and strategic management, and collaborative team skills. Throughout the program, theories and concepts of management and ethical leadership are enhanced by experiencing and testing these concepts in skill-based exercises, case discussions and team-based project work, including community-based team projects in not-for-profit and for-profit business settings.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business BS major and who did not select a second major or are not admissible to their second major choice will be placed in a Business BA program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1160 SAT score OR 25 ACT score OR graduated in the top eight percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business.
Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: The management major prepares graduates for managerial leadership in a world characterized by:

- Corporate accountability.
- Cross-functional management.
- Demands for continuous process improvements to enhance the value chain.
- Ethical decision making.
- The fast pace of e-business.
- Growing technological sophistication.
- The need for skills in communicating and working with people, directing projects and managing change.
- Racial, cultural and gender diversity in the workforce.

Graduates with skills in these areas are likely to be recruited by:

- For-profit and not-for-profit organizations.
- High-tech firms.
- Large and small organizations.
- Management consulting firms.
- Service and manufacturing firms.


## Contact Information:

Business, W. P. Carey School of
Department of Management
http://wpcarey.asu.edu/management-degree/index.cfm
BA 323
wpcareymgt@asu.edu
480-965-3431

## Management (Entrepreneurship), BS (BAMGTEBS)

## Campus: TEMPE, WEST

Program Description: The entrepreneurship concentration prepares students to identify, evaluate and develop entrepreneurial opportunities, whether in existing companies or in new business ventures. The entrepreneurship concentration is grounded in the management major's emphasis on collaboration, leadership, communication and team building, but adds refined analytical, managerial and leadership skills appropriate for people who want to change the world through new product development and innovation.
Students in the entrepreneurship concentration frequently collaborate with students from across the university, in particular students in the Design and the Arts Institute and the School of Sustainability. Additionally, the topic of sustainability is strongly emphasized throughout the curriculum. Graduates have the option of starting their own businesses or working for companies that value their entrepreneurial abilities.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business BS major and who did not select a second major or are not admissible to their second major choice will be placed in a Business BA program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1160 SAT score OR 25 ACT score OR graduated in the top eight percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business.
Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: The entrepreneurship concentration within the management major prepares students for leadership in a world characterized by rapid new product development, short product life cycles, demands for continuous change and improvement, and the need to move quickly to capture value from fleeting opportunities. Embedded within the entrepreneurship concentration is a consistent focus on integrating skill sets from a wide range of business disciplines, as it is requisite of all entrepreneurs to be conversant across an ever-changing landscape of issues. Graduates with these skills are likely to be recruited by
smaller and family-owned firms, high-tech firms, for-profit and not-for-profit organizations, as well as larger organizations with an entrepreneurial bent. Management graduates also often start their own businesses.

## Contact Information:

Business, W. P. Carey School of
Department of Management
http://wpcarey.asu.edu/management-degree/index.cfm
BA 323
wpcareymgt@asu.edu
480-965-3431

## Marketing, BS (BAMKTBS)

Campus: TEMPE, WEST

Program Description: Students majoring in marketing gain an understanding of the science behind consumer behavior and the critical role that marketing plays in all organizations. In addition, they develop marketing skills that provide a competitive advantage in their careers. The nationally ranked and award-winning marketing faculty share a passion for teaching and mentoring undergraduate students. Faculty provide many productive ways for students to get involved in the life of our department and work with our business partners. The department is home to the Center for Services Leadership, the premier international center for the study of the science of services, and offers distinctive course work in professional sales, relationship management and sports business.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business BS major and who did not select a second major or are not admissible to their second major choice will be placed in a Business BA program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1160 SAT score OR 25 ACT score OR graduated in the top eight percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business.
Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: Through the proper selection of course work and other educational experiences, a marketing student may prepare for a variety of careers in areas such as:

- Business development.
- Business-to-business marketing.
- Customer relationship management.
- International marketing.
- Market research and information management.
- Marketing communications.
- Professional sales and relationship management.
- Retail management.
- Sales management.
- Services marketing.

The degree program provides fundamentals, flexibility and specialization opportunities.

## Contact Information:

Business, W. P. Carey School of
Department of Marketing
http://wpcarey.asu.edu/
BAC 460
wpcareymkt@asu.edu
480-965-3621

## Supply Chain Management, BS (BASCMBS)

Campus: TEMPE, WEST

Program Description: Supply chain managers coordinate the purchase of raw materials, manufacturing and transportation of materials across multiple vendors and multiple countries to provide the services and finished goods sitting on your local store shelf or online retailer. It is a key reason that you can buy an ever-increasing variety of goods and services at remarkably low prices.
The supply chain management program provides W. P. Carey School of Business students with an in-depth knowledge of integrated supply chain management. The curriculum focuses on:

- Execution systems.
- Logistics.
- Negotiations.
- Operations.
- Planning.
- Procurement.
- Strategy development.

Classes are small and use projects and case studies to bring the material to life.
Our program is consistently ranked as one of the top supply chain programs in the world, providing our students an opportunity to be recruited by many leading international companies in many different industries.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 210 Brief Calculus.
Admission Requirements: Freshmen admission requirements: 1160 SAT Reasoning OR 25 ACT score, OR graduated in the top eight percent of high school class.
Freshmen should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business. Students who are not admissible to a W. P. Carey Business BS major and who did not select a second major or are not admissible to their second major choice will be placed in a Business BA program in W. P. Carey School of Business.
Transfer admission requirements ( 30 or more semester hours of credit after high school): 3.00 transfer GPA AND 1160 SAT score OR 25 ACT score OR graduated in the top eight percent of high school class.
Transfer students should select an additional major when applying for admission. Additional choices may include any of the W. P. Carey's Business BA programs or any other business or other degree program outside W. P. Carey School of Business.
Students with less than 45 transfer hours who are not admissible to a W. P. Carey School of Business major and who did not select a second major or are not admissible to their second major choice will be placed in Exploratory--Social and Behavioral Sciences in University College.
Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: Career track progression can lead to the vice president level in supply-chain-related areas. Firms recruit ASU supply chain management graduates from around the world and in all sectors of the economy, including public and private,
manufacturing, service, health care and retail. Students from our program are highly sought after, and we have excellent placements. The following are some positions that our graduates have been hired into:

- Buyer/planner.
- Commodity manager.
- Distribution manager.
- Internet marketing analyst.
- Inventory specialist.
- Logistics planner.
- Materials manager.
- Operations planner/analyst.
- Planner or analyst.
- Product forecaster.
- Production coordinator.
- Production line manager.
- Production scheduler.
- Quality control specialist.
- Supply management analyst.


## Contact Information:

Business, W. P. Carey School of
Department of Supply Chain Management
http://wpcarey.asu.edu/supply-chain-management/
BA 446
wpcarey.scm@asu.edu
480-965-6044

## Design and the Arts, Herberger Institute for

## Architectural Studies, BSD (ARSTDBSD)

Campus: TEMPE
Program Description: Architects design buildings and environments that are useful, sustainable and aesthetically pleasing. This implies an understanding of people's needs, of the science and technology of building, and of the concepts of aesthetics. The faculty in The Design School offer a B.S.D. in architectural studies. In addition to developing knowledge and skills in architectural design, building technology, landscape architecture and professional practice, students are encouraged to select electives from a broad range of approved courses both within the institute and across the university. These electives may be selected to devise a minor, to further professional study, or in some other fashion enrich the student's academic experience.
This is an eight-semester program requiring sequential completion of studio course work (or its approved equivalent) at any point of entry.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.
Admission Requirements: Students are admitted to the major, but must pass a degree milestone to continue in the major at the end of the first year.

Career Opportunities: Graduates of the bachelor's degree program who wish to become licensed can complete their professional studies by attending graduate school and earning the accredited professional master's degree. In Arizona, other graduates work for registered architects for several years before taking their licensing examination. Some begin their careers working for small offices of 10 to 20 people, others work for very large firms, industries, corporations or governmental agencies.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/sala.php
CDN 162

## Art (Art Education), BFA (FAARTEBFA)

Campus: TEMPE

Program Description: The B.F.A. in art with a concentration in art education involves:

- How instructors and administrators can best facilitate the teaching of art.
- How people learn about art.
- Policy making in art.
- The study of art.

The program focuses on public and private K-12 instruction, art in higher education and educational programs in art museums. Students investigate issues in art teaching and learning from multiple perspectives, including:

- Art inquiry.
- Context.
- Development.
- Studio.
- Visual culture.

In addition to their art education course work, students are required to take course work in the various studio programs offered in the School of Art.

Additional Program Fee: N.
Second Language Requirement: N .
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates who also complete the state certification requirements for an art specialist certificate can teach in public and private elementary schools, middle schools and high schools. Graduates who do not seek state certification may find opportunities for jobs with art museums and recreational or community service groups that offer art instruction.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102

## Art (Art History), BA (FAARTHBA)

## Campus: TEMPE

Program Description: The B.A. in art history is a comprehensive degree designed to train students to engage with visuality in multiple ways. It offers a diverse curriculum intended to foster critical understanding of the aesthetics, production, patronage and consumption of art. Eleven internationally recognized faculty offer classes across many cultures and time periods, geographies, and multiple approaches and methodologies.

Additional Program Fee: N.
Second Language Requirement: $Y$.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Students meeting the university requirements for admission may matriculate in the Herberger Institute for Design and the Arts. Separate admission procedures and approvals are required for some programs within the college. Students must contact specific departments or schools for details.
Freshmen students applying to the Herberger Institute School of Art enter ASU as art exploratory majors in the School of Art. There is no portfolio review process at the time of admission to ASU for freshmen.

Typically students in their second year interested in studio art and art education will submit a portfolio for review once they have completed their core requirements and are completing the last of the 12 hours of 200-level art requirements; or if they are interested in art history or museum studies, they will submit a declaration form in the semester in which they complete 30 hours. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- the existence of parallel and equal courses in the college's curriculum, and
- departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 semester hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates in art history at the bachelor's level find employment opportunities in commercial art galleries, entry-level jobs with art publications and in museums. A graduate degree is essential for professional jobs; a master's degree prepares individuals to teach at the community college level or to gain entry into museums, auction houses and publishing companies. The Ph.D. is a necessity for employment as a university or college teacher, and for responsible administrative posts in the museum and publishing world.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Art Studies), BA (FAARTSTDBA)

Campus: TEMPE
Program Description: The art studies curriculum offers students a broad educational foundation in the arts and general studies. The B.A. in art with a concentration in art studies is an interdisciplinary program featuring course work in art history, studio art, performing arts and a range of arts-related courses throughout the university. This concentration offers students a great deal of flexibility in planning course work. The scope of offerings in art and elsewhere on campus is unparalleled at smaller institutions. An art studies student can assemble an art-related curriculum focused on individual student needs, in consultation with a faculty advisor.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Students meeting the university requirements for admission may matriculate in the Herberger Institute for Design and the Arts. Separate admission procedures and approvals are required for some programs within the college. Students must contact specific departments or schools for details.
Freshmen may apply directly to the Art Studies program; there is no portfolio review for this major.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- the existence of parallel and equal courses in the college's curriculum, and
- departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 semester hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates work in arts-related fields such as:

- Arts administration.
- Galleries.
- Service-related art fields.

Career opportunities are also available with employers who seek graduates with a well-rounded humanities education.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Ceramics), BFA (FAARTCBFA)

Campus: TEMPE

Program Description: The B.F.A. ceramics program provides a stimulating and challenging environment for artistic and intellectual growth. With the realization that discipline, familiarity with historical precedents, and freedom go hand in hand with creative activities, the area strives to strike a balance between the acquisition of traditional skills and the promotion of independence and innovation. Responsibility is placed on the individual student to find personally meaningful content and an effective means to express that content within the ceramic arts. The ceramics program features a complete and varied line of kilns, wheels and other equipment. World-renowned faculty ensure that graduates of the program learn the techniques and concepts that will enable their work to take any direction they wish. A strong guest artist schedule enhances the program and the Ceramics Research Center at the ASU Art Museum, with its collection of more than 3,000 pieces, provides unparalleled opportunities to study and research ceramics.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.

Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates of the undergraduate and graduate programs work as artists in the field, selling their works through commercial galleries, commissions and to private collectors. Some artists work as designers and consultants to the commercial ceramic industry; others set up their own businesses, producing hand-crafted functional ware, architectural tiles and one-of-a-kind works.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Drawing), BFA (FAARTDBFA)

Campus: TEMPE
Program Description: The B.F.A. drawing program offers a learning environment for creative, intellectual and technical growth that leads to quality art practice and professionalism. The program encourages a wide spectrum of approaches to contemporary drawing as visual expression, ranging from traditional to innovative. Students work under the guidance of a large full-time faculty of active professionals who are nationally and internationally recognized. Visiting artists of national stature enhance the program with lectures and individual undergraduate critiques.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates complete the program with drawing skills that enable them to apply for positions that require knowledge in drawing or two-dimensional conceptual skills. Further education, either formal or informal, is usually necessary to refine their skills in a very competitive marketplace. Many graduates continue their education in an M.F.A. graduate program, which allows them to develop their talent further and to teach. Some take jobs in related fields, such as galleries and museums, allowing them to continue producing their own creative work.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Fibers), BFA (FAARTFBFA)

Campus: TEMPE
Program Description: The B.F.A. fibers program cultivates an environment that stimulates both creative and intellectual growth. As they pursue their degree, students are encouraged to discover their distinctive expression informed by knowledge and skills related to surface design, woven structures and 3-D structures. Course work covers processes from basic carding, spinning, dyeing and felting to the use of the loom. Throughout, students are challenged to utilize and interpret textile traditions while considering innovative and interdisciplinary approaches to contemporary art.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates with a B.F.A. are prepared to establish their own studios and begin making art or design fabrics for use as interior fabrics or as one-of-a-kind garments. Students are also prepared to begin a graduate program. Some undergraduates have gone to New York City to work in the field of designing textiles. Others prefer to focus on their own art for exhibition. Graduates also set up their own studios and design wearable or fabrics for interior use, while others make their living by doing commissioned work for interior spaces.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102

## Art (Intermedia), BFA (FAARTIBFA)

Campus: TEMPE
Program Description: The B.F.A. intermedia program is a conceptually driven program with an interdisciplinary approach to artmaking. Students work with experimental studio practices, performance and digital media to explore new avenues for selfexpression, collaborative practice and community action. The program covers a wide range of conceptual and media orientations reflecting the professional practices of a growing team of faculty members. Currently, emphases in performance, installation, mixed media, digital video, digital sculpture, animation and Web art are offered. Interaction and collaboration across other areas in the School of Art, including sculpture and photography, are encouraged and supported.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Career opportunities depend on the emphasis selected. Possibilities include:

- Computer graphics and animation.
- Independent artist.
- Media consultant.
- Museum or gallery installation.
- Positions in the music/entertainment industry.
- Set designer.
- Teacher.
- Videography.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu
ART 102
herbergeradvising@asu.edu
480-965-3468
Art (Metals), BFA (FAARTMBFA)
Campus: TEMPE

Program Description: The B.F.A. metals program offers a wide range of traditional and non-traditional approaches to:

- Attention to detail.
- Creativity.
- Critical thinking.
- Emphasizing craft skills.
- Metalworking.

A well-equipped studio with a wide variety of metal-smithing tools is offered. Students explore the close relationship with the School of Art's sculpture and foundry programs, learn important entrepreneurial skills and receive a strong foundation in technical vocabulary and methods for working with metal while being encouraged to experiment with alternative materials and techniques. Students have the opportunity to gain knowledge and skills through additional educational opportunities that include:

- Conferences and symposia.
- Internship possibilities.
- Lectures.
- Visiting artists.
- Visits to artist studios, museums and exhibitions.
- Workshops.

ASU is located in proximity to numerous galleries and museums as well as local organizations such as:

- The Arizona Artist-Blacksmith Association.
- The Arizona Designer Craftsmen.
- Metalink.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates find opportunities in jewelry firms or work in independent production as one-of-a-kind jewelers in their own businesses. Many students further their opportunities by going on to complete the M.F.A.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu/

## Art (Museum Studies), BA (FAARTMSBA)

## Campus: TEMPE

Program Description: Museum studies students explore:

- Art galleries.
- Art history.
- Art museums.
- Visual arts organizations.

The B.A. in art with a concentration in museum studies undergraduate program at ASU is one of the most rigorous in the U.S. The program develops students knowledgeable in:

- Art history.
- Critical writing skills.
- Foreign languages.
- Museums, galleries and visual arts organizations.

The curriculum includes art history courses taught by faculty with diverse specialties. Students must take courses in:

- Art history.
- Galleries and museums.
- Research.
- Small business.

Students must also demonstrate an ability to read at least one foreign language.
Additional Program Fee: $N$.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Students meeting the university requirements for admission may matriculate in the Herberger Institute for Design and the Arts. Separate admission procedures and approvals are required for some programs within the college. Students must contact specific departments or schools for details.
Freshmen students applying to the Herberger Institute School of Art enter ASU as art exploratory majors in the School of Art. There is no portfolio review process at the time of admission to ASU for freshmen.

Typically students in their second year interested in studio art and art education will submit a portfolio for review once they have completed their core requirements and are completing the last of the 12 hours of 200-level art requirements; or if they are interested in art history or museum studies, they will submit a declaration form in the semester in which they complete 30 hours. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- the existence of parallel and equal courses in the college's curriculum, and
- departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 hours of resident credit in the major as approved by the faculty.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Museum studies graduates find employment possibilities in art galleries, art-based organizations and entrylevel positions with art publications and museums. A graduate degree is necessary for professional positions. An M.A. prepares
individuals to teach at community colleges and to gain entry into museums, auction houses and publishing companies. The Ph.D. is necessary for employment as a faculty member at a university or for administrative posts in museums and higher education.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu/
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Painting), BFA (FAARTPABFA)

Campus: TEMPE

Program Description: The B.F.A. painting program offers a learning environment for creative, intellectual and technical growth that leads to quality art practice and professionalism. The program encourages a wide spectrum of approaches to contemporary painting as visual expression, ranging from traditional to innovative. Students work under the guidance of a large full-time faculty of active professionals who are nationally and internationally recognized. Visiting artists of national stature enhance the program with lectures and individual undergraduate critiques.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200-level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates complete the program with the painting skills that enable them to apply for positions that require knowledge in painting or two-dimensional conceptual skills. Further education, either formal or informal, is usually necessary to refine their skills in a very competitive marketplace. Many graduates continue their education in an M.F.A. graduate program, which allows them to develop their talent further and to teach. Some take jobs in related fields, such as galleries and museums, allowing them to continue their own creative work.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu/
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Photography), BFA (FAARTPHBFA)

Campus: TEMPE
Program Description: The B.F.A. photography program offers students a broad-based educational experience centering around light sensitive systems. The photography faculty at ASU is significant in size and diverse both in background and creative practice, making possible a wide range of options for students. Students work in 19th century processes, a state of the art digital lab, traditional black and white darkrooms and in collaboration with printmakers and intermedia artists. The program includes course work in criticism and theory as well as gallery and museum practice. Northlight Gallery grants students the opportunity to engage with photographic artists from around the world, as well as providing experience with collections and exhibition opportunities.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. The B.F.A. is essential for advanced study leading to the terminal M.F.A. This advanced degree offers opportunities in:

- Curatorial work in galleries, museums and historical collections.
- History or studio areas.
- Nonprofit arts organization management.
- University teaching.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu/
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Printmaking), BFA (FAARTPMBFA)

## Campus: TEMPE

Program Description: The B.F.A. printmaking program provides a complete studio experience with regular courses in:

- Book arts.
- Intaglio.
- Lithography.
- Monotype.
- Other graphic applications.
- Papermaking.
- Relief.
- Screen-print.

Accomplished faculty teach in spacious, well-equipped studios, offering a complete range of print media. While individual students are encouraged to pursue a personal direction, the faculty encourages students to become well-rounded printmakers; experiencing and understanding many media and processes including experimentation and interdisciplinary approaches to making art. No style, technique or aesthetic approach is stressed over another, so that the individual quality of each student's work is the essential measure of achievement. Collaboration is encouraged and students often work with other areas in the School of Art, particularly photography and intermedia.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Trained printmakers are working artists, practicing the expression of a personal understanding of their place in the world. They may find employment as artists or printmakers in schools of all levels teaching the execution and appreciation of visual art. They also work in fine art print studios, executing original prints for other artists. Printmaking skills such as screen-printing or photomechanical techniques, acquired for the production of art, also have commercial, nonart applications that may afford skilled employment. Artists with printmaking skills may also work with graphic designs, illustrations and signage or may work in museums, conservation, publishing, galleries and in other art-related activities. Additionally, their art may sell successfully in the open marketplace.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu/
ART 102
herbergeradvising@asu.edu
480-965-3468

## Art (Sculpture), BFA (FAARTSBFA)

Campus: TEMPE

Program Description: The B.F.A. sculpture program recognizes the broad, interdisciplinary nature of sculpture today. A wide range of media now fall within an expanded definition of sculpture. Course work includes:

- Architectural sculpture.
- Foundry.
- Interactive and kinetic sculpture.
- More traditional forms of 3-D expression, including metal and wood.
- Neon.
- Video installation.

While classes run the gamut of the contemporary sculpture environment, there also is an emphasis on helping students put today's creations in the context of both the history of sculpture and the larger field of contemporary art. Critical inquiry is augmented by courses in the art history program. Visiting artists, curators and critics connect students to the contemporary context.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: All art students will be admitted to ASU into the Bachelor of Arts (art studies) program. They must complete a series of requirements including foundational course work and successfully passing a portfolio review to be eligible for study in one of the school's Bachelor of Fine Arts degree programs, which include upper-division course work in the studio. There is no portfolio review process at the time of admission to ASU for freshmen.
Typically, students in their second year who are interested in studio art and art education will submit a portfolio for review after completing the core requirements and during completion of the last of the 12 hours of 200 -level art requirements. Students interested in art history or museum studies will submit a declaration form in the semester in which they complete 30 hours. The student's major will be changed upon successful completion of the portfolio. Students may choose to remain in and complete the Bachelor of Arts (art studies) in which case no portfolio is required.
Transfer students who have completed the foundational core and pre-art requirements may submit a portfolio for review before they have been admitted to ASU. To complete an undergraduate degree in four years, it is recommended that community college transfer students, who are completing a two year degree and have completed the foundational core and pre-art requirements, apply and submit a portfolio in the semester they are completing their community college degree or the semester before they plan to enter Arizona State University.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to 1) the existence of parallel and equal courses in the college's curriculum, and 2) departmental or school evaluation of studio courses with respect to performance standards.
Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates are prepared to embark on a lifetime exploration of the many aspects of 3-D art. Positions are available in teaching, the fabrication and design of exhibitions, set design, the motion picture industry, welding and 3-D design. Academic posts and positions with museums generally require advanced degrees. Many students also prefer to establish their own studios after graduation.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Art
http://art.asu.edu/
ART 102
herbergeradvising@asu.edu
480-965-3468

## Arts (BA in the Arts), BA (FAATSBA)

## Campus: TEMPE

Program Description: The B.A. in the arts is a broad-based liberal arts degree program designed for students who are passionate about the arts but wish to explore alternatives to the institute's discipline-specific degree programs. Students will gain an increased understanding of the theoretical, historical and cultural forces that shape the arts through an open-ended path for exploration and development of a range of skills that will be valuable for advanced study in multiple disciplines.
The major includes a common core for all students, and students choose a focus from:

- An individualized focus designed by the student and subject to approval by the institute's standards committee and the dean's office.
- Arts administration.
- Digital culture.
- Historical and theoretical studies in the arts.

Applicants interested in pursuing the focus area in digital culture, which emphasizes the ways in which our digitally-mediated environments are changing our experience and evolving our culture, must have a minimum high school G.P.A. of 3.00 and an 1100 SAT or 24 ACT standardized test score. This emphasis also requires MAT 210.

Additional Program Fee: $N$.
Second Language Requirement: $Y$. Students pursuing the historical and theoretical studies focus area must demonstrate foreign language proficiency. Remaining focus areas do not have a second language requirement.
First Required Math Course: MAT 142 College Mathematics. Students pursuing the digital culture in the arts focus area must complete MAT 210 Brief Calculus (instead of MAT 142).

Career Opportunities: As the population in the state of Arizona grows, numerous arts organizations are developing to provide cultural and artistic experiences for our residents. These organizations will need and demand individuals with the necessary critical thinking skills who understand the impact the arts have on society and who will be passionate employees committed to the arts. This degree will provide the skill set necessary for careers as:

- Arts administrators.
- Arts critics.
- Media arts authors and publishers.
- Media arts educators.
- Media arts system developers.
- Museum curators and directors.
- Public art specialists.


## Contact Information:

Design and the Arts, Herberger Institute for
Dean, Herberger Institute for Design and the Arts
http://herbergerinstitute.asu.edu/degrees/ba_arts/
CDS 101
herbergeradvising@asu.edu
480-965-4495

## Dance, BFA (FADANBFA)

Campus: TEMPE
Program Description: The School of Dance provides a dynamic and culturally diverse learning environment where students develop as creative artists, scholars and educators. The B.F.A. in dance provides an interdisciplinary curriculum promoting innovative collaborations and a holistic approach to acquiring skills for successful career transitions. Creativity and research, the core program values, are embedded in a broad range of academic experiences that emphasize:

- Artistic process.
- Leadership.
- Movement and creative practices.
- Pedagogy.

Studies in dance cultures, music, digital media, dance history, philosophy, criticism, movement science, somatics, and stage and screen production enhance the rich educational setting.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Students are admitted as dance interview majors and must successfully complete an interview and audition before enrolling in courses. Because entrance into the School of Dance is selective, you also will be asked to indicate your second choice major. If you pass your interview, the School of Dance will change your major to dance. In the event that you are admitted to ASU, but not selected for the School of Dance, you will be placed in your second major choice indicated at the time of application.
Interview days take place in November and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective dance students, including transfer students, to participate in the interview day during the semester prior to their intended date of enrollment. More information on the interview process and deadlines can be found at http://dance.asu.edu/students/undergrad/prospective/applying.php.
The deadline for applying to ASU for admission to the dance program for fall 2011 was February 18, 2011. Applications are no longer being accepted for fall 2011.
The deadline for applying to ASU for admission to the dance program for spring 2012 is November 4, 2011.
The deadline for applying to ASU for admission to the dance program for fall 2012 is January 27, 2012.
Students must select a different major when applying to ASU after these deadlines. Students may participate in the interview day held during their first semester at ASU. The School of Dance will change their major to dance if they pass the interview.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 hours of resident credit in the major as approved by the faculty.

Career Opportunities: A comprehensive academic foundation prepares dance professionals for the 21st century by developing the expertise and broad experience to enable them to initiate artistic projects, perform and choreograph. Other graduates:

- Conduct research.
- Direct or manage a performing arts company, studio or dance-related organization.
- Facilitate community partnerships.
- Produce dance media for performance or instruction.
- Teach and design curriculum.
- Work in technical theatre and dance production.
- Write scholarly publications.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Dance T
http://dance.asu.edu/
PEBE 107A
herbergeradvising@asu.edu
480-965-5029

## Dance (Dance Education), BFA (FADANEBFA)

Campus: TEMPE
Program Description: The B.F.A. in dance education prepares students for certification to teach dance in K-12 schools in the state of Arizona. Students in this degree program are required to complete additional state certification requirements. The School of Dance provides a dynamic and culturally diverse learning environment where students develop as creative artists, scholars and educators. Studies in dance cultures, music, digital media, dance history, philosophy and criticism, movement science, somatics, and stage and screen production enhance the rich educational setting. Creativity and research, the core program values, are embedded in a broad range of academic experiences emphasizing movement and creative practices, artistic process, leadership and pedagogy.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Students are admitted as dance interview majors and must successfully complete an interview and audition before enrolling in courses. Because entrance into the School of Dance is selective, you also will be asked to indicate your
second choice major. If you pass your interview, the School of Dance will change your major to dance. In the event that you are admitted to ASU, but not selected for the School of Dance, you will be placed in your second major choice indicated at the time of application.
Interview days take place in November and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective dance students, including transfer students, to participate in the interview day during the semester prior to their intended date of enrollment. More information on the interview process and deadlines can be found at http://dance.asu.edu/students/undergrad/prospective/applying.php.
The deadline for applying to ASU for admission to the dance program for fall 2011 was February 18, 2011. Applications are no longer being accepted for fall 2011.
The deadline for applying to ASU for admission to the dance program for spring 2012 is November 4, 2011.
The deadline for applying to ASU for admission to the dance program for fall 2012 is January 27, 2012.
Students must select a different major when applying to ASU after these deadlines. Students may participate in the interview day held during their first semester at ASU. The School of Dance will change their major to dance if they pass the interview. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 hours of resident credit in the major as approved by the faculty.

Career Opportunities: The concentration in dance education lays the foundation for a career in teaching in public and private settings. Students earn a state of Arizona teaching certification while pursuing the dance education degree and can expect to find employment in one of many thriving middle school and high school dance programs throughout the state, or in more informal community settings.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Dance T
http://dance.asu.edu/
PEBE 107A
herbergeradvising@asu.edu
480-965-5029

## Design Studies, BA (ARDSNBA)

Campus: TEMPE

Program Description: The Bachelor of Arts in design studies is a four-year, non-studio program of study in design that focuses on the design disciplines offered in the ASU Herberger Institute:

- Architectural studies.
- Graphic design.
- Industrial design.
- Interior design.
- Landscape architecture.

It is a highly flexible program of study, much like a liberal arts degree, where students select design and design-related courses offered in the institute and throughout the university. Students acquire a breadth of design knowledge via courses taken from three categories:

- Communication for design.
- Design history.
- General design.

It provides a design education, both general and specific, to students who seek opportunities in the broader design sector or in graduate education.
Students may undertake the B.A. in design studies with a focus area in digital culture, which emphasizes the ways in which our digitally-mediated environments are changing our experience and evolving our culture, or in one of two specific concentrations, 1)
design studies, which allows students to discover the myriad possibilities of design as a subject area as well as the flexibility that it provides for further exploration, or 2) design management, which offers a selection of courses in management and human communication that complement design.
Applicants pursuing the digital culture emphasis must have a minimum high school GPA of 3.00 and an 1100 SAT or 24 ACT standardized test score. This emphasis also requires MAT 210.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Although a specific career path is not the principal intention of the B.A. in design studies, recent graduates of the program have become involved in sales and marketing in the design sector, or have gone on to graduate studies in architecture and planning. Other possible career paths include journalism and education.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/ba_design/
CDS 101
herbergeradvising@asu.edu
480-965-4495

## Design Studies (Design Management), BA (ARDSNMBA)

Campus: TEMPE
Program Description: The Bachelor of Arts in design studies is a four-year, non-studio program of study in design that focuses on the design disciplines offered in the ASU Herberger Institute:

- Architectural studies.
- Graphic design.
- Industrial design.
- Interior design.
- Landscape architecture.

It is a highly flexible program of study, much like a liberal arts degree, where students select design and design-related courses offered in the institute and throughout the university. Students acquire a breadth of design knowledge via courses taken from three categories:

- Communication for design.
- Design history.
- General design.

It provides a design education, both general and specific, to students who seek opportunities in the broader design sector or in graduate education.
Students may undertake the B.A. in design studies with a focus area in digital culture, which emphasizes the ways in which our digitally-mediated environments are changing our experience and evolving our culture, or in one of two specific concentrations, 1) design studies, which allows students to discover the myriad possibilities of design as a subject area as well as the flexibility that it provides for further exploration, or 2) design management, which offers a selection of courses in management and human communication that complement design.
Applicants pursuing the digital culture emphasis must have a minimum high school GPA of 3.00 and an 1100 SAT or 24 ACT standardized test score. This emphasis also requires MAT 210.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: Although a specific career path is not the principal intention of the B.A. in design studies, recent graduates of the program have become involved in sales and marketing in the design sector, or have gone on to graduate studies in architecture and planning. Other possible career paths include journalism and education.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/ba_design/
CDS 101
herbergeradvising@asu.edu
480-965-4495

## Film (Film \& Media Production), BA (FAFLMBA)

Campus: TEMPE
Program Description: The School of Theatre and Film offers a B.A. in film with a concentration in film and media production. The concentration provides students with a comprehensive practical knowledge of production, awareness of the impact of media and entertainment on the audience, and an understanding of the role of the artist in society. The program teaches students to thoughtfully consider not only how to look through a lens, but also why they should, through a unique emphasis in ethical decisionmaking in both content creation and business practices. Students in the film and media production concentration have access to digital cameras, lighting and sound equipment in a teaching studio. Post-production facilities include multiple computer editing stations.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: The film and media production concentration provides students with the knowledge and experience to prepare them to enter careers in media and entertainment as:

- Cinematographers.
- Directors.
- Editors.
- Producers.
- Screenwriters.

The B.A. program is an excellent broad-based foundation for work in the profession or to prepare the student for further training at graduate schools or conservatories.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Theatre and Film
http://theatrefilm.asu.edu
GHALL 232
herbergeradvising@asu.edu
480-965-5337

## Film (Filmmaking Practices), BA (FAFPRBA)

Campus: TEMPE
Program Description: A B.A. in film with a concentration in filmmaking practices provides students with a comprehensive film education within the context of the liberal arts while offering specialty course work in the following areas: performance, design and production, new work development, and film and media production.
Students pursuing the filmmaking practices concentration of the B.A. in film receive grounding in production practice, independent film producing, entertainment ethics and an understanding of the role of the artist in society. Students are encouraged to participate in the production-oriented environment of the Herberger Institute for Design and the Arts. The curriculum's course work in ethics in entertainment and dramatic analysis are two unique components of the program.

## Additional Program Fee: N.

## Second Language Requirement: N.

First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Students interested in pursuing the highly-selective, studio-based film and media production concentration must achieve a 3.00 GPA or higher in the film core and a cumulative ASU GPA of 2.50 to interview for the concentration. They must also interview and submit a portfolio for review in the semester in which they are completing the core.

Career Opportunities: The filmmaking practices concentration provides students with the knowledge and experience to prepare them to enter entry-level positions in media and entertainment production, producing and film management or to enter advanced graduate-level education.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Theatre and Film
http://theatrefilm.asu.edu
GHALL 232
herbergeradvising@asu.edu
480-965-5337

## Graphic Design, BSD (ARGRABSD)

## Campus: TEMPE

Program Description: Graphic designers are responsible for designing how information is communicated. Forms of communication include print, video, film and electronic (Web). The faculty in the School of Architecture and Landscape Architecture offers the B.S.D. in graphic design. Graphic designers are concerned with:

- Appearance.
- Choosing the appropriate mechanism for distinctness.
- Clarity of information.
- How communication is transferred and received.

This program places an emphasis on strategic communication, developed through a design process that includes research, analysis, conceptualization, planning and realization. The process leads to innovative visual communication design solutions for contemporary design problems that are local to global in scope.
This is an eight-semester program requiring sequential completion of studio course work (or approved equivalent) at any point of entry.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: Based on a very diversified portfolio upon graduation, students opting for the graphic design profession gain employment in:

- Advertising.
- Brand and corporate identity.
- Broadcast (TV graphics).
- Interaction and interface design.
- Museum/exhibitions.
- Publication.

Specific examples of graphic designers' work include:

- Annual reports.
- Books.
- Environmental graphics.
- Multimedia presentations.
- Publications.
- Web pages.

Students may also pursue graduate studies leading to careers in design education and other fields of professional endeavor in design.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/design.php
CDN 162
herbergeradvising@asu.edu
480-965-8947

## Industrial Design, BSD (ARINDBSD)

Campus: TEMPE

Program Description: Industrial designers are responsible for the design of products and systems that people use in their everyday lives. The industrial design program at ASU focuses on a new model of interdisciplinary product development called integrated innovation. The primary goal of integrated innovation is to produce design solutions that:

- Meet user needs in unexpected ways.
- Create value in the marketplace.
- Improve society and the environment.

This is an eight-semester program requiring sequential completion of studio course work (or approved equivalent) at any point of entry.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 170 Precalculus.

## Admission Requirements:

Career Opportunities: Graduates work for corporations that have their own industrial design departments, in such industries as:

- Computer hardware/software.
- Consumer goods.
- Furniture.
- Medical device manufacturing.
- Toys.
- Transportation.

Opportunities also exist with consulting firms that design for a variety of different clients. A third option includes entrepreneurship, as some graduates have established their own design and manufacturing ventures.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/design.php
CDN 162
herbergeradvising@asu.edu
480-965-8947
Interior Design, BSD (ARINTBSD)
Campus: TEMPE

Program Description: Course work in the B.S.D. in interior design examines the context in which individuals and groups live and work. Interior designers create environments within buildings that meet the physical and psychological needs of individuals and institutions providing a useful, rich and rewarding context for their lives. Interior design involves the design of space, equipment and furniture. It requires substantial technical and organizational understanding, as well as sensibility to color, shape and form. This is an eight-semester program requiring sequential completion of studio course work (or approved equivalent) at any point of entry.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.
Career Opportunities: Graduates find employment opportunities with interior design firms or architecture firms specializing in interior design. The scope of work undertaken by interior designers is expanding. Career opportunities include historic restoration, and working for large corporations or governmental agencies within their interior design and space-management offices.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/design.php
CDN 162
herbergeradvising@asu.edu
480-965-8947

## Landscape Architecture, BSLA (ARPLABSLA) <br> Campus: TEMPE

Program Description: Landscape architects are involved in the design, planning, analysis and management of the natural and built environment. Landscape architects develop expertise in both the art of design and the environmental sciences. While landscape architects may design a residential garden, an urban park and playground, a residential development or a national park, they all share a deep commitment to stewardship of the land and the highest standard of planning and design that directly enhances the quality of people's lives. Landscape architecture students learn about:

- Art.
- Construction techniques.
- Design.
- History.
- Natural science.
- Planning.
- Social studies.

This is an eight-semester program requiring sequential completion of studio course work (or its approved equivalent) at any point of entry.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

## Admission Requirements:

Career Opportunities: Graduates in landscape architecture are able to pursue career opportunities in private landscape architecture, academic organizations and government agencies such as:

- The Bureau of Land Management.
- The Department of Transportation.
- The National Park Service.
- The Soil Conservation Service.
- The U.S. Corps of Engineers.
- The U.S. Forest Service.

Some landscape architects elect to pursue graduate degrees to develop specialty skills and to enhance their opportunities for career advancement.
U.S. News and World Report named landscape architecture among the best career choices in 2010.

## Contact Information:

Design and the Arts, Herberger Institute for
The Design School
http://herbergerinstitute.asu.edu/degrees/sala.php
CDN 162
herbergeradvising@asu.edu
480-965-3536

## Music, BA (FAMUSBA)

Campus: TEMPE
Program Description: The B.A. in music provides students with a broad-based degree applicable to a variety of professional settings. Students develop an understanding of human culture through:

- Analysis of ideas.
- Appreciation of art forms.
- Beauty and symmetry.
- Knowledge of theories.
- Perception of differences.
- Principles of form, subsistancy, argument and philosophy.

This degree may be used as a first step toward a master's or doctoral degree or combined with other degree programs.

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Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
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Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.A. in music is October 1, 2011 for voice applicants, and October 15,2011 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.A. in music is December 1, 2011 for voice applicants, and January 15, 2012 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Music research, criticism, publishing and concert management are a few of the career opportunities. Many graduates pursue a master's or a doctorate in music or in another professional field.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Music Education (Choral-General), BMus (FAMUSCBMUS)

Campus: TEMPE
Program Description: The B.Mus. in music education (choral-general) program is designed for students interested in pursuing careers as teachers of general or choral music in elementary and secondary schools. This program also prepares students for K-12 teaching certification.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in music education is October 1, 2011 for voice applicants, and October 15, 2011 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in music education is December 1, 2011 for voice applicants, and January 15, 2012 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates teach in public and private school music programs that offer general music, choir, band, orchestra or some combination of musical activities. Graduates also:

- Perform in community and professional ensembles.
- Teach privately.
- Work in music-related industries.


## Contact Information:

## Music Education (Instrumental), BMus (FAMUSIIBM) <br> Campus: TEMPE

Program Description: The B.Mus. in music education (instrumental) program is designed for students interested in pursuing careers as teachers of instrumental (band, percussion, winds) music in the public schools. The degree program also prepares students for K12 teaching certification.

## Additional Program Fee: N.

Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in music education is October 1, 2011 for voice applicants, and October 15, 2011 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in music education is December 1, 2011 for voice applicants, and January 15, 2012 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates teach in public and private school music programs that offer general music, choir, band, orchestra, strings or some combination of musical activities. Graduates also:

- Perform in community and professional ensembles.
- Teach privately.
- Work in music-related industries.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu

## Music Education (String), BMus (FAMUSISBM)

Campus: TEMPE
Program Description: The B.Mus. in music education (string) program is designed for students interested in pursuing careers as teachers of string and orchestra music in the public schools. The degree program also prepares students for K-12 teaching certification.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/.
Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in music education is October 1, 2011 for voice applicants, and October 15, 2011 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in music education is December 1, 2011 for voice applicants, and January 15, 2012 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates teach in public and private school music programs that offer general music, choir, band, strings, orchestra or some combination of musical activities. Graduates also:

- Perform in community and professional ensembles.
- Teach privately.
- Work in music-related industries.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Music Therapy, BMus (FAMUSTHBM)

Campus: TEMPE

Program Description: The B.Mus. in music therapy program prepares students for a career in the mental-health/special-education profession. Music therapists use carefully planned music activities to achieve desired changes in client behavior and functioning. Music therapy is a profession in which engagement in active music-making helps a client achieve nonmusical, therapeutic goals. Educating the potential music therapist requires both a wide range of musical skills and the ability to work with people in a therapeutic manner. Music therapy students have many opportunities to develop their clinical skills. Students also study:

- Musical improvisation.
- Popular music styles.
- Songwriting.
- World music.


## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 119 Finite Mathematics.

Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/students/prospective/undergrad/apply_SOM.php for information on applying to the School of Music.
Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here:
http://music.asu.edu/students/prospective/undergrad/apply_Audition.php.
Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in music therapy is October 1, 2011 for voice applicants, and October 15, 2011 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in music therapy is December 1, 2011 for voice applicants, and January 15, 2012 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates are eligible to register as professional music therapists and can sit for the music therapy certification examination given by the Certification Board of the American Music Therapy Association. Positions are available regionally and nationally in hospitals, schools, rehabilitation centers, nursing homes and other health care facilities. Career opportunities also include work in:

- Geriatric care.
- Mental health.
- Physical rehabilitation.
- Special education.

A music therapy career may also provide an opportunity for private practice with flexible hours.

## Contact Information:

Design and the Arts, Herberger Institute for

School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Performance (Collaborative Piano), BMus (FAMUSPPBM) <br> Campus: TEMPE

Program Description: The B.Mus. in performance with a concentration in collaborative piano offers private instruction, supervised ensemble work and ample opportunity for extensive collaborative performance experience. The program focuses on core repertoire: the English, German and French song literature and selected works from the instrumental, operatic and oratorio repertoire. Collaboration within the School of Music involves working with all performance areas, including:

- Concerts with large ensembles and choirs.
- Duo recitals with instrumental and voice colleagues.
- Performances of great chamber music literature.
- Work as rehearsal and pit pianists for the Lyric Opera Theater.


## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Applicants interested in this program should first contact Dr. Andrew Campbell (Andrew.Campbell@asu.edu) before applying. Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in keyboard performance is October 15, 2011. Fall 2012: The deadline for applying to ASU for admission to B.Mus. in keyboard performance is January 15, 2012.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. Career opportunities include:

- Collaborative pianist or private studio of piano.
- Collaborative piano.
- Professional performer.

College-level teaching does require a graduate degree.

## Contact Information:

Design and the Arts, Herberger Institute for

School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Performance (Guitar), BMus (FAMUSPGBM)

## Campus: TEMPE

Program Description: The B.Mus. program in performance with a concentration in guitar stresses the study of guitar literature and techniques. Goals include enabling students to express themselves musically while emphasizing the skills necessary to pursue a career as a professional musician. The course of study includes extensive performance experiences.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in guitar performance is October 15, 2011.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in guitar performance is January 15, 2012.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Career opportunities for graduates with a B.Mus. in performance with a concentration in guitar include:

- Artist-in-residence interaction as part of school programs or state or community arts councils, for social functions.
- Performing as a concert soloist or in chamber music ensembles.
- Providing music for restaurants, clubs, resorts, churches and art galleries.
- Recording and studio work.
- Teaching privately or as part of a college or university program.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Performance (Jazz), BMus (FAMUSPJBM)

Campus: TEMPE

Program Description: The jazz concentration, under the B.Mus. in performance, places an emphasis on the improvisational aspects of jazz. The curriculum combines jazz performance, composition and pedagogy in a program that allows the student to express himself or herself musically while emphasizing the skills necessary to pursue a career as a professional musician. The study of jazz performance can be a suitable background for work in:

- Contemporary composition.
- Film scoring, writing and arranging.
- Performance.
- Private instruction.
- Recording studios.
- Teaching jazz pedagogy and other related fields in the music industry.


## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in jazz performance is October 15, 2011.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in jazz performance is January 15, 2012.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Graduates are prepared to work in various professional capacities, including:

- Accompanist.
- Film scorer.
- Freelance musician.
- Jazz composer/arranger.
- Professional recording artist.
- Studio musician.
- Teacher.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Performance (Keyboard), BMus (FAMUSPKBM)

Campus: TEMPE

Program Description: The B.Mus. in performance with a concentration in keyboard stresses the study of literature and techniques of the piano, organ or harpsichord. Goals include enabling students to express themselves musically while emphasizing the skills necessary to pursue a career as a professional musician. The course of study includes extensive performance experience.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in keyboard performance is October 15, 2011.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in keyboard performance is January 15, 2012.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Career opportunities for graduates with a B.Mus. in performance with a concentration in keyboard include:

- Artist-in-residence interaction as part of school programs or state or community arts councils.
- Performing as a concert soloist or in chamber music ensembles.
- Performing for social functions.
- Providing music for restaurants, clubs, resorts, churches and art galleries.
- Recording and studio work.
- Teaching privately or as part of a college or university program.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Performance (Music Theatre), BMus (FAMUSPMBM)

## Campus: TEMPE

Program Description: The B.Mus in performance with a concentration in music theatre involves workshopping music theatre performance techniques, and performances in various kinds of musical theatre. Students perform in up to five full productions every year, including most varieties of music theatre. The program includes classes in techniques and skills specifically appropriate for
music theatre consequently, music theatre students are not dependent upon classes in music and theatre as separate entities. The general education requirements include courses in dance and acting.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/students/prospective/undergrad/apply_SOM.php for information on applying to the School of Music.
Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here:
http://music.asu.edu/students/prospective/undergrad/apply_Audition.php.
Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in music theatre performance is October 1,2011 for voice applicants, and October 15, 2011 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in music theatre performance is December 1, 2011 for voice applicants, and January 15, 2012 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: This degree is designed for individuals who plan a career as a performing singer-actor/actress in opera, operetta, musicals and other forms of musical theatre. Graduates find work as conductors, teachers, singers and as actors/actresses. Graduates perform:

- On Broadway.
- In major opera houses.
- In national touring companies.
- At universities, colleges and schools.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Performance (Orchestral Instrument), BMus (FAMUSPOBM)

Campus: TEMPE

Program Description: The B.Mus. in performance (orchestral instrument) stresses the study of specific orchestral instrument literature and techniques. Goals include enabling students to express themselves musically while emphasizing the skills necessary to pursue a career as a professional musician. The course of study includes extensive performance experience.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in performance (orchestral instrument) is October 15, 2011.

Fall 2012: The deadline for applying to ASU for admission to B.Mus. in performance (orchestral instrument) is January 15, 2012. You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Career opportunities for graduates with a B.Mus. in performance with a concentration in orchestral instruments include:

- Artist-in-residence interaction as part of school programs or state or community arts councils.
- Performing as a concert soloist or in chamber music ensembles.
- Performing for social functions.
- Providing music for restaurants, clubs, resorts, churches and art galleries.
- Recording and studio work.
- Teaching privately or as part of a college or university program.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Performance (Voice), BMus (FAMUSPVBM)

## Campus: TEMPE

Program Description: The B.Mus. in performance with a concentration in voice stresses the study of specific vocal literature and techniques. Goals include enabling students to express themselves musically while emphasizing the skills necessary to pursue a career as a professional musician. The course of study includes extensive performance experience.

## Additional Program Fee: N.

Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/admissions/undergrad/ for information on applying to the School of Music. Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here: http://music.asu.edu/admissions/auditions/. Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in voice performance is October 1, 2011. A prescreening is required for all applicants: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in voice performance is December 1, 2011. A prescreening is required for all applicants: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: Career opportunities for graduates with a B.Mus. in performance with a concentration in voice include:

- Artist-in-residence interaction as part of school programs or state or community arts councils.
- Performing as a concert soloist or in chamber music ensembles.
- Performing for social functions.
- Providing music for restaurants, clubs, resorts, churches and art galleries.
- Recording and studio work.
- Teaching privately or as part of a college or university program.


## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

Theatre, BA (FATHEBA)
Campus: TEMPE
Program Description: A B.A. in theatre provides students with a comprehensive theatre education within the context of the liberal arts while offering specialty course work in the following areas:

- Design and production.
- New work development.
- Performance.
- Theatre and performance studies.
- Theatre for youth.
- Extensive and professionally staffed production shops.
- The Galvin Playhouse.
- The Lyceum Theatre.
- The Prism Theatre for student-production work.
- Uniquely equipped rehearsal and instructional spaces.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Students, both freshmen and transfers, are admitted to ASU as theatre exploratory majors. They successfully complete an interview and audition or portfolio review before enrolling as a BA Theatre major. Students may interview before enrolling at ASU or participate in the interview during their first semester of study. Students who enter before interviewing take course work in the first semester to better prepare them for the interview.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- the existence of parallel and equal courses in the college's curriculum, and
- departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 semester hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

Career Opportunities: The B.A. in theatre program provides an excellent broad-based foundation for work in the arts or entertainment professions or readies students for further training at graduate schools or conservatories. The program's liberal arts emphasis prepares graduates for a variety of occupations in both theatre and non-theatre fields. Opportunities may include work with production companies in theatre, television or film, in schools, themed entertainment or arts entrepreneurship.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Theatre and Film
http://theatrefilm.asu.edu/
GHALL 232
herbergeradvising@asu.edu
480-965-5337

## Theatre (Acting), BA (FATHEABA)

## Campus: TEMPE

Program Description: The B.A. in theatre with a concentration in acting involves comprehensive academic and hands-on theatre study with an emphasis on performance. Student artists and scholars gain a general appreciation of the principal fields of human knowledge while acquiring training in such areas as:

- Film.
- New work development.
- Performance and directing, design and production.
- Theatre and performance studies.
- Theatre for youth.

ASU offers well-equipped theatre facilities including:

- Extensive shops.
- The Galvin Playhouse.
- The Lyceum Theatre.
- The Prism Theatre for student-produced work.
- Uniquely equipped rehearsal and instructional spaces.


## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Students are admitted to ASU as theatre exploratory majors. They successfully complete an interview and audition or portfolio review before enrolling as a B.A. Theatre major. Students may interview before enrolling at ASU or participate in the interview during their first semester of study. Students who enter before interviewing take course work in the first semester to better prepare for the interview. After students are admitted to the B.A. Theatre major, they may interview for admission into the acting concentration; these interviews are conducted in the spring semester. Sophomore standing is required for admission to the acting concentration.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- the existence of parallel and equal courses in the college's curriculum, and
- departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 semester hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

Career Opportunities: The B.A. in theatre program provides an excellent broad-based foundation for work in the profession and readies students for further training at graduate schools or conservatories. The program's liberal arts emphasis prepares graduates for a variety of occupations. The concentration in acting offers students advanced study that can lead to careers in theatre, film or media, ranging from regional/seasonal theatrical production opportunities to work in television and film, as well as careers in education and other related arts disciplines.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Theatre and Film
http://theatrefilm.asu.edu/
GHALL 232
herbergeradvising@asu.edu
480-965-5337

## Theatre (Design \& Production), BA (FADSNPRBA)

## Campus: TEMPE

Program Description: A B.A. in theatre with a concentration in design and production provides students with an opportunity to focus their course work on performance production and thus prepare for both advanced graduate study in the field and entry-level careers in entertainment design and production within the context of a comprehensive B.A. theatre degree. ASU offers wellequipped theatrical facilities including:

- Extensive and professionally staffed production shops.
- The Galvin Playhouse.
- The Lyceum Theatre.
- The Prism Theatre for student-production work.
- Uniquely equipped rehearsal and instructional spaces.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Students are admitted to ASU as theatre exploratory majors. They successfully complete an interview and audition or portfolio review before enrolling as a BA Theatre major. Students may interview before enrolling at ASU or participate in the interview during their first semester of study. Students who enter before interviewing take course work in the first semester to better prepare for the interview. Interviews for admission into the B.A. theatre design and production concentration are conducted each semester and require a portfolio.
Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- the existence of parallel and equal courses in the college's curriculum, and
- departmental or school evaluation of studio courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 semester hours in resident credit at ASU. Transfer students enrolled in the college must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

Career Opportunities: The B.A. in theatre program provides an excellent broad-based foundation for work in the profession or readies students for further training at graduate schools or conservatories. The program's liberal arts emphasis prepares graduates for a variety of occupations. The design and production concentration offers students advanced study that can lead to entry-level careers in the performing arts and the entertainment industry as designers or technologists.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Theatre and Film
http://theatrefilm.asu.edu/
GHALL 232
herbergeradvising@asu.edu
480-965-5337

## Theory \& Composition (Composition), BMus (FAMUSTCBM) <br> Campus: TEMPE

Program Description: The B.Mus. in theory and composition with a concentration in composition program focuses on the study of music from a compositional viewpoint. This program may be used as the first step toward a master's or doctoral degree in music theory and composition. The School of Music offers students the opportunity to study with theorists and composers who have established national and international reputations.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/students/prospective/undergrad/apply_SOM.php for information on applying to the School of Music.
Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here:
http://music.asu.edu/students/prospective/undergrad/apply_Audition.php.
Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in composition is October 1, 2011. A prescreening portfolio is required of all applicants. In addition, a separate prescreening is required for all applicants who wish to audition in voice. Prescreening information: http://music.asu.edu/admissions/prescreening.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in composition is December 1, 2011. A prescreening portfolio is required of all applicants. In addition, a separate prescreening is required for all applicants who wish to audition in voice.
Prescreening information: http://music.asu.edu/admissions/prescreening.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. This particular degree program is designed for a student who plans a career as a professional composer, arranger or college-level teacher of theory and composition. College-level teaching does require a graduate degree.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371

## Theory \& Composition (Theory), BMus (FAMUSTTBM)

## Campus: TEMPE

Program Description: The B.Mus. in theory and composition with a concentration in theory program focuses on the theoretical study of music. This program may be used as the first step toward a master's or doctoral degree in music theory and composition. The School of Music offers students the opportunity to study with theorists and composers who have established national and international reputations.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Important: An additional application, supplementary materials, and audition are required for entrance to the School of Music. Please go to http://music.asu.edu/students/prospective/undergrad/apply_SOM.php for information on applying to the School of Music.
Because entrance into the School of Music is selective, you will be asked to indicate a second choice of major when completing your application to ASU. If you pass your audition, the School of Music will change your major to the appropriate music major. In the event that you are admitted to ASU, but not selected for the School of Music, you will be placed in the second major choice you indicated on your application to ASU. Audition days take place in November (for spring admission), and February/March (for fall admission) of each year. More information on the audition process is available here:
http://music.asu.edu/students/prospective/undergrad/apply_Audition.php.
Application Deadlines
Please visit http://music.asu.edu/admissions/deadlines for complete information on School of Music deadlines.
Spring 2012: The deadline for applying to ASU for admission to the B.Mus. in music theory is October 1, 2011 for voice applicants, and October 15, 2011 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
Fall 2012: The deadline for applying to ASU for admission to B.Mus. in music theory is December 1, 2011 for voice applicants, and January 15, 2012 for instrumental and keyboard applicants. A prescreening is required for all applicants who wish to audition in voice: http://music.asu.edu/admissions/voice.
You must select a different major when applying to ASU after these deadlines. You may apply to the School of Music for the audition day(s) held during your first semester at ASU. The School of Music will change your major to music if you pass your audition. Direct transfer of courses from other accredited institutions to the Herberger Institute for Design and the Arts are subject to:

- The existence of parallel and equal courses in the college's curriculum.
- Departmental or school evaluation of studio and class piano courses with respect to performance standards.

Every candidate for the bachelor's degree must earn a minimum of 30 credit hours in resident credit at ASU.
Transfer students enrolled in the institute must complete a minimum of 15 credit hours of resident credit in the major as approved by the faculty.

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. This particular degree program is designed for a student who plans a career as a professional theorist, composer, arranger or college-level teacher of theory and composition. College-level teaching does require a graduate degree.

## Contact Information:

Design and the Arts, Herberger Institute for
School of Music
http://music.asu.edu
MUSIC E167
somadmissions@asu.edu
480-965-3371
Engineering, Ira A. Fulton Schools of

## Aerospace Engineering (Aeronautics), BSE (ESAEROBSE)

## Campus: TEMPE

Program Description: The aerospace engineering curriculum provides students with an education in technological areas critical to the design and development of aerospace vehicles and systems. The aeronautics concentration, under the B.S.E. in aerospace engineering, emphasizes aeronautical engineering. Topics in required courses cover:

- Aerodynamics.
- Aerospace materials.
- Aircraft structures.
- Flight mechanics.
- Propulsion.
- Stability and control.

Required astronautics topics include:

- Attitude control.
- Orbital mechanics.
- Rocket propulsion.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

## Additional Program Fee: Y.

Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours:

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Career Opportunities: A majority of students entering the field of aerospace engineering desire to work on the design and analysis of aerospace vehicles. Most graduates are employed in the aerospace industry or in government positions related to aerospace. Specific careers in aerospace engineering include:

- Aeronautical and space systems integration.
- Configuration development.
- Material and structural design.
- Propulsion engineering.
- Space mission design and analysis.
- Vehicle and component analysis using computer-aided tools.
- Vehicle design and performance.
- Wind-tunnel and flight testing.

The objectives of the mechanical engineering program are for graduates to be employed in mechanical engineering or a related field or accepted to graduate school. Our gradutes will:

- Be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
- Contribute to the design of solutions to complex engineering problems.
- Demonstrate professionalism and will hold positions of increasing responsibility within their organizations.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Mechanical and Aerospace Engineering Program
http://engineering.asu.edu
ECG 202
macme@asu.edu
480-965-2335

## Aerospace Engineering (Astronautics), BSE (ESAEASBSE)

## Campus: TEMPE

Program Description: The aerospace engineering curriculum provides students with an education in technological areas critical to the design and development of aerospace vehicles and systems.
The astronautics curriculum covers:

- Attitude determination and control.
- Elective topics in aeronautics.
- Gas dynamics.
- Orbital mechanics.
- Rocket propulsion.
- Space environment.
- Space structures.
- Telecommunications.

Students in the astronautics concentration culminate their major study with a capstone design project which incorporates the multiple disciplines involved in the creation of a space-going vehicle.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign
nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours:

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Career Opportunities: A majority of students entering the field of aerospace engineering desire to work on the design and analysis of aerospace vehicles. Most graduates are employed in the aerospace industry or in government positions related to aerospace. Specific careers in aerospace engineering include:

- Aeronautical and space systems integration.
- Configuration development.
- Material and structural design.
- Propulsion engineering.
- Space mission design and analysis.
- Vehicle and component analysis using computer-aided tools.
- Vehicle design and performance.
- Wind-tunnel and flight testing.

The objectives of the mechanical engineering program are for graduates to be employed in mechanical engineering or a related field or accepted to graduate school. Our graduates will:

- Be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
- Contribute to the design of solutions to complex engineering problems.
- Demonstrate professionalism and will hold positions of increasing responsibility within their organizations.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Mechanical and Aerospace Engineering Program
http://engineering.asu.edu/macme
ECG 202
macme@asu.edu
480-965-2335

## Biomedical Engineering, BSE (ESBMEBSE)

## Campus: TEMPE

Program Description: Biomedical engineering uses principles and methods from engineering and the physical sciences to solve problems in biology and medicine.

Our first primary goal is to produce high-quality graduates with a broad-based education in engineering and the life and natural sciences who are well prepared for further graduate study in biomedical engineering, a career in biomedical research, or entry into a medical or other health professional school.
The second primary goal is to graduate students who apply their skills in an ethical, sustainable and environmentally responsible manner to make contributions that address societal and individual needs.
Our objective is to prepare students:

- For productive employment, graduate study, or professional programs, especially in human and animal medicine, biotechnology and related biology-based engineering fields.
- Who continue to develop technical knowledge, awareness and leadership abilities to address domestic or global issues in human health.
- Who will ethically and responsibly contribute to society, drawing from an integrated, multidisciplinary biomedical engineering education, focusing on sustainability and environmentalism.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5. Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours must meet EITHER the primary OR the secondary criteria (not both):

## Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 3.00 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Biomedical engineers are employed in industry, hospitals and research facilities affiliated with educational and medical institutions, education and governmental regulatory agencies. They often serve a coordinating or interfacing function, using their background in both the engineering and medical fields. In industry, they may create designs where an in-depth understanding of living systems and technology is essential. They may be involved in performance testing of new or proposed products. Government positions often involve product testing and safety, as well as establishing safety standards for devices. In the hospital, the biomedical engineer may provide advice on the selection and use of medical equipment and supervise performance
testing and maintenance of the selected equipment. Biomedical engineers may also build customized devices for special health care or research needs.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Harrington Bioengineering Program
http://engineering.asu.edu/bhse
ECG 334
sbhse@asu.edu
480-965-3028

## Chemical Engineering, BSE (ESCHEBSE)

Campus: TEMPE

Program Description: Chemical engineering deals with the application of chemistry, physics and mathematics to the process of converting raw materials or chemicals into more useful or valuable forms. Chemical engineering also involves the design of valuable new materials and chemical products.
The B.S.E. offered in the chemical engineering program builds on a broad base of knowledge within the basic and mathematical sciences and engineering, and offers excellent career opportunities. Chemical engineers are engaged in the development and production of a diverse range of products, including high performance materials needed for aerospace, automotive, biomedical, electronic, environmental and military applications. The modern discipline of chemical engineering is intertwined with biology and biomedical engineering.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Y .
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours:

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Career Opportunities: Chemical engineers have traditionally played a key role in industries as varied as:

- Artificial fibers.
- Ceramics.
- Food.
- Glass.
- Petrochemicals.
- Petroleum.
- Plastics.
- Primary metals.
- Specialty chemicals.

Newer areas, such as semiconductors, biotechnology, biomedical engineering, modern materials (composites, superconductors) and the solution of environmental problems, have also generated more opportunities for chemical engineers. These factors, along with the recent recovery and reported record earnings of the chemical and petroleum industries, have created a great demand for chemical engineering graduates.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Chemical Engineering Program
http://engineering.asu.edu/macme
ECG 202
macme@asu.edu
480-965-2335

## Civil Engineering, BSE (ESCEEBSE)

Campus: TEMPE
Program Description: Civil engineering majors in the Ira A. Fulton Schools of Engineering have four choices within the B.S.E. accredited program:

- Civil engineering.
- Civil engineering with construction engineering concentration.
- Civil engineering with environmental engineering concentration.
- Civil engineering with sustainable engineering concentration.

The first choice allows students to choose among design and technical elective courses in their senior year. The other choices specify design and technical courses to students with minimal choices. Regardless of choice, the B.S.E. in civil engineering is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-3477700.

Civil engineering involves the analysis, planning, design, construction, maintenance and application of sustainable practices in all areas of urban infrastructure for government, commerce, industry and the public domain. These include:

- Airports.
- Bridges.
- Canals.
- Dams.
- Factories.
- Office towers.
- Roadway systems.
- Schools.
- Tunnels and subway systems.
- Water purification facilities.

Civil engineers are concerned with the impact their projects have on the public and the environment; they coordinate the needs of society with technical and economic feasibility.
The curriculum exposes students to various areas of civil engineering, including:

- Construction engineering.
- Environmental engineering.
- Geotechnical engineering.
- Structures.
- Transportation.
- Hydrosystems engineering.


## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: ASU graduates with a B.S.E. in civil engineering readily find employment. Civil engineers work in many different types of companies, from large corporations to small, private consulting firms, or governmental agencies. A civil engineering background is an excellent foundation for jobs in management and public service. Civil engineering is one of the best engineering professions from the viewpoint of international travel opportunities or for eventually establishing one's own consulting business. The B.S.E. in civil engineering prepares graduates for the Fundamentals of Engineering (FE) examination, the Professional Engineering (PE) examination and graduate degrees.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Civil, Environmental and Sustainable Eng Program
http://engineering.asu.edu/sebe
ECG 251
sebe@asu.edu
480-965-3589

## Civil Engineering (Construction Engineering), BSE (ESCEECBSE)

Campus: TEMPE
Program Description: Civil engineering majors in the Ira A. Fulton Schools of Engineering have four choices within the B.S.E. accredited program:

- Civil engineering.
- Civil engineering with construction engineering concentration.
- Civil engineering with environmental engineering concentration.
- Civil engineering with sustainable engineering concentration.

The first choice allows students to choose among design and technical elective courses in their senior year. The other choices specify design and technical courses to students with minimal choices. Regardless of choice, the B.S.E. in civil engineering is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-3477700.

The faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. in civil engineering, with a concentration in construction engineering. Civil engineering is primarily concerned with the public domain and application of sustainable practices in all areas of urban infrastructure. The emphasis in construction involves design, construction techniques, maintenance and operation of many types of facilities for government, commerce and industry. These include:

- Airports.
- Bridges.
- Canals.
- Dams.
- Environmental protection facilities, such as solid waste and water treatment systems.
- Factories.
- Office towers.
- Roadway systems.
- Schools.
- Tunnels and subway systems.

In addition to construction engineering, the curriculum exposes students to other areas of civil engineering, including:

- Environmental engineering.
- Geotechnical engineering.
- Structures.
- Transportation.
- Hydrosystems engineering.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both):

## Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: ASU graduates with a B.S.E. in civil engineering find employment in consulting firms, design and build firms, municipalities, regulatory agencies and state agencies. A civil engineering background is an excellent foundation for jobs in management and public service.
International opportunities are abundant and are likely to expand. The B.S.E. in civil engineering prepares graduates for the Fundamentals of Engineering (FE) examination, the Professional Engineering (PE) examination and graduate degrees.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Civil, Environmental and Sustainable Eng Program
http://engineering.asu.edu/sebe
ECG 202
sebe@asu.edu
480-965-3589

## Civil Engineering (Environmental Engineering), BSE (ESCEEEBSE)

Campus: TEMPE

Program Description: Civil engineering majors in the Ira A. Fulton Schools of Engineering have four choices within the B.S.E. accredited program:

- Civil engineering.
- Civil engineering with construction engineering concentration.
- Civil engineering with environmental engineering concentration.
- Civil engineering with sustainable engineering concentration.

The first choice allows students to choose among design and technical elective courses in their senior year. The other choices specify design and technical courses to students with minimal choices. Regardless of choice, the B.S.E. in civil engineering is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-3477700.

The faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. in civil engineering, with a concentration in environmental engineering. Environmental engineering is a multidisciplinary field based on traditional civil engineering principles, chemistry, biology and geology. Environmental engineers are involved with:

- Air pollution technology.
- Analysis of the fate and transport of pollutants in natural environments.
- Application of sustainable practices in all areas of urban infrastructure.
- Construction of hazardous waste containment systems.
- The design and operation of water and wastewater treatment systems.
- Remediation of contaminated soils and waters.
- Surface water quality management.
- Water conservation and reuse.

In addition to environmental engineering, the curriculum exposes students to other areas of civil engineering, including hydrosystems engineering, structures, geotechnical engineering and transportation.

Additional Program Fee: Y.
Second Language Requirement: N.

First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: ASU graduates with a B.S.E. in civil engineering with a concentration in environmental engineering find employment in consulting firms, municipalities, regulatory agencies and industry. The growth of environmental engineering positions has been balanced by the growing number of students entering the field, resulting in a stable job market.
A civil engineering background is an excellent foundation for jobs in management and public service. International opportunities are abundant and are likely to expand. The B.S.E. in civil engineering prepares graduates for the Fundamentals of Engineering (FE) examination, the Professional Engineering (PE) examination and graduate degrees.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Civil, Environmental and Sustainable Eng Program
http://engineering.asu.edu/sebe
ECG 251
sebe@asu.edu
480-965-3589

## Civil Engineering (Sustainable Engineering), BSE (ESCEESUBSE)

## Campus: TEMPE

Program Description: Civil engineering majors in the Ira A. Fulton Schools of Engineering have four choices within the B.S.E. accredited program:

- Civil engineering.
- Civil engineering with construction engineering concentration.
- Civil engineering with environmental engineering concentration.
- Civil engineering with sustainable engineering concentration.

The first choice allows students to choose among design and technical elective courses in their senior year. The other choices specify design and technical courses to students with minimal choices. Regardless of choice, the B.S.E. in civil engineering is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-3477700.

The faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. in civil engineering, with a concentration in sustainable engineering. With limited world resources, especially in urban areas, there is large demand for new sustainable engineering approaches and technologies in order to maintain and improve the quality of life for future generations. Sustainable engineering incorporates systems modeling and life cycle approaches to assessing the resiliency and material selection across all areas of urban infrastructure, or built environment, currently addressed within the civil engineering degree. The program is designed to provide students with exposure to material from several disciplines that comply with the principles of economic, social and ecological sustainability and apply them to traditional civil engineering areas of environmental engineering, hydrosystems engineering, structures, geotechnical engineering and transportation.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Many jobs are currently available that are applicable to the civil engineers with sustainable engineering concentration in different types of companies, from large corporations to small, private consulting firms, or governmental agencies. Civil engineering is one of the best engineering professions from the viewpoint of international travel opportunities or for eventually establishing one's own consulting business. The B.S.E. in civil engineering prepares graduates for the Fundamentals of Engineering (FE) examination, the Principles and Practice of Engineering (PE) examination and graduate degrees.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Civil, Environmental and Sustainable Eng Program

## Computer Science, BS (ESCSEBS)

## Campus: TEMPE

Program Description: Computer science professionals design, analyze and improve the quality of computer software and systems for a variety of applications, including:

- Artificial intelligence.
- Computer vision.
- Graphics.
- Information management.
- Internet.
- Multimedia.
- Security.


## Examples of projects a computer scientist might work on include:

- Computer networking.
- Database and information systems.
- Distribution processing systems.
- Gaming systems.
- Next-generation computing systems.
- Search engines.
- Software engineering.
- Web services.

The program focuses on the design of computers, computational processes for problem solving, and information transfer and transformation with an emphasis in improving software and system quality, security, performance and usability. The program supports the evolution of the computing and informatics disciplines, and the integration of computer and information sciences with engineering, science and other disciplines.
Accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Graduates with a degree in computer science find employment working in a variety of capacities ranging from computer and software design to development of information technologies. Their jobs are often distinguished by the high level of theoretical expertise they apply to solving complex problems and the creation and application of new technologies. Some computer science-related jobs may include:

- Creating video games and systems.
- Designing artificial intelligence systems.
- Developing network security applications.
- Inventing and implementing more efficient systems for managing data management, including information retrieval and search on the Internet.

With the theoretical foundation built in the program, computer science graduates can excel in system and software development, as well as in designing effective computing solutions for emerging and challenging problems in modern society. Skills in system development and research can lead to entrepreneurial activity that produces innovative computing products and services. Three to five years after graduation, the alumni of the B.S. degree in computer science will:

- Be engaged in lifelong learning to maintain currency in an ever-changing field, to innovate, and to attain professional advancement.
- Communicate effectively to all constituencies and uphold a commitment to professional and ethical conduct.
- Have demonstrated the ability of analyzing and solving complex technical problems from a broad perspective of computer science, including business, societal, and regulatory issues.
- Have demonstrated the ability to tackle challenging computing problems using a comprehensive knowledge of computer science, while reflecting a commitment to quality, innovation, critical thinking, and continuous improvement.
- Have functioned as both a leader and collaborative team member within different environments.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Computer Science and Engineering Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Computer Science (Information Assurance), BS (ESCSEIBS)

## Campus: TEMPE

Program Description: Information Assurance (IA) concentration in computer science B.S. degree program provides students with the knowledge, skills and the advanced development capability in science for building dependable and secure information systems and networks, and ensuring the integrity and quality of the information being stored, processed and transmitted by information systems and networks. The curriculum of the concentration spans broad areas of IA including:

- Applied cryptography.
- Computer and network security.
- Computer forensics.
- Data and information security.
- Software security.

ASU has been certified as a National Center of Academic Excellence in Information Assurance Education (CAEIAE) and a National Center of Academic Excellence in Information Assurance - Research (CAE-R) by the National Security Agency and the Department of Homeland Security. IA courseware at ASU has been certified by the Information Assurance Courseware Evaluation (IACE) Program to satisfy the standards for 1) Information Systems Security (INFOSEC) Professionals (NSTISSI 4011), and 2) Senior Systems Managers (CNSSI 4012).

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Students enrolled in our IA concentration are eligible for federal fellowships such as the Department of Defense Information Assurance Scholarship Program (IASP) and the Federal Cyber Service Scholarship for Service Program (SFS). Graduates with a degree in computer science with IA concentration find employment in a variety of capacities ranging from computer system and software development to research on information assurance technologies. Some related jobs may include:

- Analyzing computer forensic data.
- Designing secure information systems.
- Implementing secure software and network applications.
- System security and penetration testing.


## Contact Information:

Engineering, Ira A. Fulton Schools of Computer Science and Engineering Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Computer Science (Software Engineering), BS (ESCSESBS)

## Campus: TEMPE

Program Description: The software engineering concentration is appropriate for computer science students seeking a career as a software engineer. Software engineering concentration students will learn advanced processes, methodologies and tools for developing and testing both large and small software applications in emerging areas such as:

- Enterprise systems.
- Service-orientated computing.
- Systems of systems.

They will also learn information assurance techniques for developing these applications. The curriculum prepares students to assume leadership roles in software development organizations, and to practice professional standards and emerging software technology to the software engineering life-cycle activities.
Accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Career opportunities are strong and numerous for software engineering concentration graduates. Graduates possess the knowledge and skills to work across the spectrum of software development process activities including:

- Architecture.
- Coding.
- Project management.
- Quality assurance.
- Requirements engineering.
- Testing.

Career paths include:

- Software analyst.
- Software architect.
- Software engineer.
- Software task leader.
- Software tester.

Software engineering concentration graduates find employment in both large and small organizations that develop, employ and manage software systems. They work on all types of projects from large, complex engineering systems, distributed banking, financial and government software, to gaming.

## Contact Information:

Engineering, Ira A. Fulton Schools of Computer Science and Engineering Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Computer Systems Engineering, BSE (ESCSEBSE)

## Campus: TEMPE

Program Description: The computer systems engineering program focuses on the analysis, design, testing, integration and evaluation of hardware and software systems. The curriculum is grounded in an array of engineering disciplines, including the applications of science and technology to the design of:

- Computer architecture.
- Computer security.
- Digital circuits.
- Distributed systems.
- Networking.
- Operating systems.

Students engage in the design of integrated hardware and software solutions for computing, communication and control applications. They practice many aspects of engineering activities, such as the development of:

- Computer networks.
- Embedded and ubiquitous systems.
- High performance computer systems.
- Individual digital components.

Students become skilled at interfacing different pieces of hardware and software components, and integrating systems and products with new capabilities and improved quality and performance.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Computer systems engineers are employed in industry, government, education and consulting and are concerned with the design, development and operation of hardware and software components of a computer system. Computer engineers often find themselves focusing on engineering problems or challenges that result in new state-of-the-art products that integrate computing and communication capabilities. They work on the development verification and testing of computer hardware and software, from chips to device controllers and embedded systems. Computer engineers frequently find jobs that involve designing new applications of computers and other devices, such as those used in:

- Airplanes.
- Digital television and photography.
- Intelligent highways and control systems for cars.
- New apparatuses for the sight-impaired or others with physical disabilities.
- New cell phone technologies.
- Security and defense systems.
- Space vehicles.

Three to five years after graduation, the alumni of the B.S.E. degree in computer systems engineering will:

- Be engaged in lifelong learning to maintain currency in an ever-changing field, to innovate and to attain professional advancement.
- Communicate effectively to all constituencies and uphold a commitment to professional and ethical conduct.
- Have demonstrated the ability of analyzing and solving complex technical problems from a broad perspective of engineering, including business, societal and regulatory issues.
- Have demonstrated the ability to tackle complex integrated software and hardware systems challenges using a comprehensive knowledge of computer systems engineering, while reflecting a commitment to quality, innovation, critical thinking and continuous improvement.
- Have functioned as both a leader and collaborative team member within different environments.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Computer Science and Engineering Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Computer Systems Engineering (Information Assurance), BSE (ESCSEIBSE)

Campus: TEMPE
Program Description: Information Assurance (IA) concentration in computer systems engineering B.S.E. degree program provides students with the knowledge, skills and the advanced development capability in engineering for building dependable and secure information systems and networks, and ensuring the integrity and quality of the information being stored, processed and transmitted by information systems and networks. The curriculum of the concentration spans broad areas of IA including security at:

- Applied cryptography and computer forensics.
- Data and information security.
- Software security.
- Systems, networks and infrastructure levels.

ASU has been certified as a National Center of Academic Excellence in Information Assurance Education (CAEIAE) and a National Center of Academic Excellence in Information Assurance - Research (CAE-R) by the National Security Agency and the Department of Homeland Security. IA courseware at ASU has been certified by the Information Assurance Courseware Evaluation (IACE) Program to satisfy the standards for 1) Information Systems Security (INFOSEC) Professionals (NSTISSI 4011), and 2) Senior Systems Managers (CNSSI 4012).

Additional Program Fee: $Y$.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Students enrolled in our IA programs are eligible for federal fellowships such as the Department of Defense Information Assurance Scholarship Program (IASP) and the Federal Cyber Service Scholarship for Service Program (SFS). Graduates with a degree in computer systems engineering with IA concentration find employment in a variety of capacities ranging from computer system and software development to research on information assurance technologies. Some related jobs may include:

- Analyzing computer forensic data.
- Designing secure information systems.
- Implementing secure software and network applications.
- Including embedded systems security.
- System security and penetration testing.


## Contact Information:

Engineering, Ira A. Fulton Schools of Computer Science and Engineering Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Construction Engineering, BSE (ESCONBSE)

## Campus: TEMPE

Program Description: The B.S.E. in construction engineering focuses on a combination of design and management topics preparing the student for a career in the engineering and construction industry. The degree prepares students who wish to gain a professional engineering license while working at the interface of design and construction; it is desirable to those students who are interested in a career emphasizing construction of infrastructure. The degree makeup includes engineering design and construction management courses with a focus on sustainability and building information modeling topics. Construction management content includes:

- Contract management.
- Construction methods.
- Cost and schedule control.
- People management.
- Project estimating.

The curriculum's design content includes structures, geotechnical engineering and transportation. Students are further prepared with the computer, management, technical and people skills needed to succeed. This degree is the third in the Southwestern U.S. and one of about 20 worldwide.

Additional Program Fee: Y .
Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: The construction engineering graduate will be prepared to begin as a field engineer, project engineer or project designer working for facililty owners, design firms, construction companies, specialty subcontractors or material suppliers. The graduate will have unique skills which will allow them to take on the role of integrator in the delivery of design build projects or development activities. As the graduate's career progresses, each should be able to take on leadership roles in the delivery of sustainable facilities in the built environment and then progress through succesively higher levels of management responsibility. The graduate should be particularly attuned to design and construction of heavy civil and industrial facililties meeting the infrastructure needs of society.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Del E. Webb Construction
http://engineering.asu.edu/sebe
ECG 251
sebe.advising@asu.edu
480-965-0595

## Construction Management (Concrete Industry Management), BS (ESCONIMBS)

## Campus: TEMPE

Program Description: The Del E. Webb School of Construction program offers the B.S. in construction with a concentration in concrete industry management. Concrete industry management graduates are broadly educated, articulate managers grounded in basic construction management, who are knowledgeable about concrete technology and techniques and are able to manage people and systems and to promote products or services in the concrete industry.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering
requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: The concrete industry management concentration provides a foundation for students who wish to pursue careers as project managers, estimators, schedulers or a combination of all three at an executive level. Concrete industry management career opportunities include:

- Advanced mixing technology or equipment manufacturing.
- Cement.
- Concrete or general contracting.
- Concrete production.
- Development.
- Field sales.
- Operations.
- Project and production management.
- Technical service.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Del E. Webb Construction
http://engineering.asu.edu/sebe
ECG G251
sebe@asu.edu
480-965-3615

## Construction Management (General Building Construction), BS (ESCONGBS)

Campus: TEMPE
Program Description: Through the B.S. in construction program (with a concentration in general building construction), students learn to organize, lead and manage the building process. Builders are one of the three most vital individuals on a job site, equal in status and importance to the architect and engineer. Students learn:

- The basics of design.
- How to estimate and control the costs of a project.
- The many construction methods used.
- What it takes to manage the people involved and the various types of contracts.

Students are prepared with the computer, management, technical and people skills needed to succeed. This is one of two construction programs in the state of Arizona and one of approximately 60 accredited programs in the nation.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: The general building construction concentration provides a foundation for students who wish to pursue careers as estimators, project managers, project engineers and eventually become owners of firms engaged in the construction of industrial, commercial and institutional structures.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Del E. Webb Construction
http://engineering.asu.edu/sebe
ECG 251
sebe@asu.edu
480-965-3615

## Construction Management (Heavy Construction), BS (ESCONHBS)

Campus: TEMPE

Program Description: Through the B.S. in construction program (with a concentration in heavy construction), students learn to organize, lead and manage the building process. Builders are one of the two most vital people on a job site, equal in status and importance to the engineer. Students learn:

- The basics of design.
- How to estimate and control the costs of a project.
- The many construction and equipment methods used.
- The various types of contracts.
- What it takes to manage the people involved.

Students are prepared with the computer, management, technical and people skills needed to succeed. This is one of two construction programs in the state of Arizona and one of approximately 60 accredited programs in the nation.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: The heavy construction concentration prepares students for careers related to the public works discipline. Graduates become project managers, estimators, schedulers or a combination of all three at an executive level. Typical heavy construction-oriented projects include:

- Airports.
- Bridges.
- Canals.
- Dams.
- Harbor and water facilities.
- Highways.
- Pipelines.
- Power plants.
- Rapid transit systems.
- Sewerage systems.
- Tunnels.
- Water works.

Heavy construction managers, through education and experience, are capable of implementing significant facets of construction on a timely and economical basis with proficiency and integrity.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Del E. Webb Construction
http://engineering.asu.edu/sebe
ECG 251
sebe@asu.edu
480-965-3615

## Construction Management (Residential Construction), BS (ESCONRBS) <br> \section*{Campus: TEMPE}

Program Description: Through the B.S. in construction program (with a concentration in residential construction), students learn to organize, lead and manage the building process. Builders are one of the three most vital people on a job site, equal in status and importance to both the architect and engineer. This program teaches:

- The basics of design.
- How to estimate and control the costs on a project.
- The many construction methods used.
- What it takes to manage the people involved and the various types of contracts.

Students are prepared with the computer, management, technical and people skills needed to succeed. This is one of two construction programs in the state of Arizona and one of approximately 60 accredited programs in the nation.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: The residential construction concentration prepares students for careers in the housing sector of the industry. Graduates become project managers, estimators, schedulers or a combination of all three at the executive level.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Del E. Webb Construction
http://engineering.asu.edu/sebe
ECG 251
sebe@asu.edu
480-965-3615

## Construction Management (Specialty Construction), BS (ESCONSBS) Campus: TEMPE

Program Description: Through the B.S. in construction program (with a concentration in specialty construction), students learn to organize, lead and manage the building process with an emphasis on construction at the subcontractor level. This concentration emphasizes the construction process from a subcontractor's perspective including mechanical, electrical and other speciality contractor management and methods. Students learn:

- The basics of design.
- How to estimate and control the costs of a project.
- The many construction methods used.
- What it takes to manage the people involved and the various types of contracts.

Students are prepared with the computer, management, technical and people skills needed to succeed. This is one of two construction programs in the state of Arizona and one of approximately 60 accredited programs in the nation.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: The specialty construction concentration prepares students for careers with contractors, working with mechanical, electrical and construction firms. It also prepares the student for careers in management at specialty contracting firms, such as:

- Control systems.
- Electrical.
- Mechanical.
- Steel erection and others.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Del E. Webb Construction
http://engineering.asu.edu/sebe
ECG 251
sebe@asu.edu
480-965-3615

## Electrical Engineering, BSE (ESEEEBSE)

Campus: TEMPE
Program Description: The goal of the electrical engineering undergraduate program is to prepare graduates for positions as electrical engineers. Faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. in electrical engineering. Following initial course work in mathematics and sciences, the foundation classes build a solid base of engineering knowledge. The electrical engineering curriculum includes a number of required upper division electrical engineering and technical elective courses; areas include:

- Circuits.
- Computer engineering.
- Electromagnetics.
- Power.
- Solid-state devices.
- Systems.

Approved technical elective courses provide students with an opportunity either to broaden their background in electrical engineering or to study, in greater depth, technical subjects in which they have special interest.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must
meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Graduates with the B.S.E. in electrical engineering find many exciting opportunities in industry. These include:

- Communication equipment and network providers.
- Computers and peripheral devices manufacturers and defense organizations.
- Consulting companies.
- Electric power utilities.
- Semiconductor chip designers and manufacturers.

The degree also prepares graduates for continued learning experiences, either in a formal graduate program or in continuing education applications.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Department of Electrical Engineering
http://engineering.asu.edu/ecee
GWC 205
askee@asu.edu
480-965-3424

## Electrical Engineering (Electric Power and Energy Systems), BSE (ESEEEPBSE)

## Campus: TEMPE

Program Description: The goal of the electric power and energy systems concentration is to prepare graduates for positions in industries dealing with generation, transmission and utilization of electric power. Generation includes conventional power generation (fossil fuel and nuclear) and alternative energy systems, including solar, wind and fuel cells. Students in this concentration will complete the foundation courses in math, science and engineering. They are then required to take the pathway course in electric power and complete nine of the 15 technical elective credit hours with power classes. In addition, the senior design capstone project should be in the area of electric power and energy systems.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Y.
Second Language Requirement: N .
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Career opportunities for graduates with a concentration in electric power and energy systems include:

- Consulting engineer firms.
- Employment in utility companies.
- Entrepreneurial opportunities.
- Power equipment manufacturers.
- Research and design organizations.
- State, federal, and municipal agencies.

This concentration will also prepare students to pursue graduate degrees in the areas of:

- Power generation.
- Power systems.
- Power transmission and distribution.
- Renewable and sustainable energy sources.


## Contact Information:

Engineering, Ira A. Fulton Schools of Department of Electrical Engineering http://engineering.asu.edu/ecee

GWC 205
askee@asu.edu
480-965-3424

## Engineering Management, BSE (ESEMGBSE)

Campus: TEMPE
Program Description: The program in engineering management is designed to provide the graduate with the skills for effective management and leadership of engineering-driven enterprises. The curriculum provides a breadth of engineering science and design with depth in one specific area suitable for practice. This knowledge is augmented with an understanding of business practices, organizational behavior and management skills to enable to graduate to succeed in the management of a scientific or engineering enterprise. Topics such as project and resource management, financial engineering, risk management, configuration management, service plans, product liability, entrepreneurship and operations management are covered, in addition to product design and process development.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission requirements for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission requirements. Students should select a second major choice when applying for admission to a degree program in the Ira A. Fulton Schools of Engineering.
International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://students.asu.edu/international-admission) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1100 SAT combined math and verbal or minimum 23 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- Admission may be granted with one deficiency in no more than two competency areas. Deficiencies in both math and laboratory science are not acceptable.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 2.75 for less than 24 transfer hours, and
- Satisfy the freshmen admission requirements.

Transfer students with more than 24 transferable college credit hours:

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- If Undergraduate Admissions requires submission of a high school transcript, admission may be granted with one deficiency in no more than two competency areas. Deficiencies in both math and laboratory science are not acceptable.

Career Opportunities: The engineering management graduate will be prepared to begin as a project management team member or lead, system specification and customer relationship management specialist, production supervisor, supply logistics engineering or similar role, and then progress through successively higher levels of management responsibility.
The graduate will leave with a deep understanding of at least one industry sector based upon the focus area they select.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Industrial, Systems \& Operations Engineering Prgm
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Engineering Special Studies (Premedical Engineering), BSE (ESESPPBSE)

## Campus: TEMPE

Program Description: In the past decade, the interrelation between engineering and medicine has become vigorous and exciting. Rapidly expanding technology dictates that engineering will continue to become increasingly involved in all branches of medicine. As this involvement develops, so will the need for physicians trained in the engineering sciences: medical professionals with a knowledge of computer technology, transport phenomena, biomechanics, bioelectric phenomena, operations research and cybernetics.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5. Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours must meet EITHER the primary OR the secondary criteria (not both):
Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 3.00 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: This program's focus is of special interest to students who desire entry into a medical college and whose medical interests lie in:

- Aerospace and undersea medicine.
- Artificial organs.
- Biomedical engineering.
- Biophysics.
- Prostheses.
- Research.


## Contact Information:

Engineering, Ira A. Fulton Schools of Engineering Special Studies Program http://engineering.asu.edu/bhse ECG 334

## Industrial Engineering, BSE (ESIEEBSE)

## Campus: TEMPE

Program Description: Industrial engineers design and manage complex systems in the manufacturing and service industries through the integration of:

- Capital.
- Energy.
- Equipment.
- Information.
- People.
- Processes.
- Materials.

Industrial engineering applies systems modeling and analysis skills to ensure that high-quality products and services are achieved with the optimal use of resources. Industrial engineering focuses on the total picture of developing, producing, delivering and servicing products and services to meet societal needs. The industrial engineer blends knowledge of mathematics, engineering principles, computing technologies, systems modeling and simulation tools and human factors with strong management and communication skills to achieve this goal. This gives an industrial engineer broad knowledge of organizations and provides increased opportunities for advancement into management and leadership.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).
- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Graduates in industrial engineering are prepared to design and manage systems for a wide range of organizations. They find exciting career opportunities in all types of manufacturing and service industries, including:

- Aerospace.
- Automotive.
- Banking.
- Defense.
- Finance.
- Government.
- Healthcare.
- Management consulting.
- Semiconductor manufacturing.
- Telecommunications.
- Transportation.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Industrial, Systems \& Operations Engineering Prgm
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Informatics, BS (ESCPIBS)

Campus: TEMPE

Program Description: The Bachelor of Science (B.S.) informatics program will be an interdisciplinary degree that combines mastery of general techniques for processing information with specialization in an application area and its information processing problems. The design of the degree responds to the rapidly growing need for skilled workers who can take a problem-driven, system-level, user-oriented perspective toward information and computing, who can apply current informatics methods to address society's needs, and who can contribute to the next generation of such systems.
The program begins with the fundamentals of informatics in a general setting and in the context of disciplinary applications. The student will select a focal area such as educational informatics, geo-informatics, etc. They will take prescribed courses and complete a two-course capstone project in the focal area. Thus, informatics graduates will remain highly interdisciplinary, yet have a specialization that gives them a head start on one possible career in informatics.

## Additional Program Fee: Y.

## Second Language Requirement: N .

MAT 210 - Brief Calculus or MAT 265 - Calculus for Engineers I

Admission Requirements: The admission requirements for a Bachelor of Science in informatics are higher than minimum university admission requirements. Students should select a second major choice when applying for admission to a degree program in the Ira A. Fulton Schools of Engineering.

International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://students.asu.edu/international-admission) and admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- A competency deficiency in either math or laboratory science is allowed. Competency deficiencies in both math and science are not allowed.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- A competency deficiency in either math or laboratory science is allowed. Competency deficiencies in both math and science are not allowed, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- A competency deficiency in either math or laboratory science is allowed. Competency deficiencies in both math and science are not allowed (if Undergraduate Admissions requires submission of a high school transcript).

Career Opportunities: An ASU informatics graduate will have the ability to develop future information technology solutions that place a strong emphasis on user needs and provide the ability to adapt and change dynamically with society's needs. This makes informaticians strong candidates for jobs in technology start-ups, management consulting firms, technology research centers and graduate programs offering emphasis in emerging technologies.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Computer Science and Engineering Program
http://engineering.asu.edu/cidse
BYENG 208
cidse.advising@asu.edu
480-965-3199

## Materials Science \& Engineering, BSE (ESMSEBSE)

Campus: TEMPE

Program Description: Materials engineers are responsible for designing and developing new and improved materials for a wide variety of engineering applications. The faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. in materials science and engineering. Courses in materials teach students about the structure of materials, how to process them to improve their structure and how the structure affects their properties and performance.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer student with 24 or more transferable college credit hours must meet EITHER the primary OR secondary criteria (not both): Primary Criteria

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).


## Secondary Criteria

- Minimum transfer GPA of 2.75 for 24 or more transfer hours, and
- Minimum GPA of 2.75 in all critical courses for Terms 1 and 2 (see major map for critical courses).

Career Opportunities: Materials engineers are in demand in a wide range of industries, including the automotive, aerospace, electronics, energy, semiconductor, computer and health care professions. The career paths in these industries offer opportunities to impact technological advances through working in a team environment with engineers from the chemical, electrical, mechanical, aerospace and other engineering disciplines.

## Contact Information:

Engineering, Ira A. Fulton Schools of
Materials Program
http://engineering.asu.edu/macme
ECG 202
macme@asu.edu
480-965-2335

## Mechanical Engineering, BSE (ESMAEMBSE)

Campus: TEMPE
Program Description: Mechanical engineering is a creative, diverse discipline. Mechanical engineers design, build and control the devices, machines, processes, and systems that are the mainstay of modern industrialized society.
Students are prepared for a career in mechanical engineering through a curriculum that includes study of the principles governing energy transfer, mechanical design, sensors and control devices and the application of these principles to the creative solution of practical modern problems.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours:

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Career Opportunities: A major strength of a mechanical engineering education is the flexibility it provides in future employment opportunities for its graduates. Mechanical engineers are employed in virtually every kind of industry. They are involved in seeking new knowledge through research; in generating creative design and development; and in the production, control, management and sales of the devices and systems needed by society.
The objectives of the mechanical engineering program are for graduates to be employed in mechanical engineering or a related field or accepted to graduate school and:

- Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
- Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
- Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Mechanical and Aerospace Engineering Program
http://engineering.asu.edu/macme
ECG 202
macme@asu.edu
480-965-2335

## Mechanical Engineering (Computational and Mathematical Mechanics), BSE (ESMAECBSE)

Campus: TEMPE

Program Description: As mathematical and numerical modeling takes on a much larger role in product development, graduates who are highly skilled in computational and mathematical engineering will be in high demand. The concentration in computational and mathematical mechanics, under the B.S.E. in mechanical engineering, is designed to teach students the modern computational tools available for solving large-scale and complex technical problems. The curriculum focuses on high-performance computing and the accurate modeling of large- and small-scale systems.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours:

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Career Opportunities: Mechanical engineers are employed in virtually every kind of industry. They are involved in seeking new knowledge through research; in generating creative design and development; and in the production, control, management and sales of the devices and systems needed by society. Therefore, a major strength of a mechanical engineering education is the flexibility it provides in future employment opportunities for its graduates.
The objectives of the mechanical engineering program are for graduates to be employed in mechanical engineering or a related field or accepted to graduate school and:

- Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
- Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
- Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Mechanical and Aerospace Engineering Program
http://engineering.asu.edu/macme
ECG 202
macme@asu.edu
480-965-2335

## Mechanical Engineering (Energy \& Environment), BSE (ESMAEEBSE)

Campus: TEMPE
Program Description: The concentration in energy and environment, within the B.S.E. in mechanical engineering, seeks to prepare students to analyze technical problems in:

- Air pollution.
- Climate change.
- Energy efficiency.
- Environmental sustainability.
- Renewable energy.
- Timely issues facing the global community.

Although the primary focus of this program is technical, the general education courses in the areas of the humanities and social and behavioral sciences introduce students to the global, political and societal issues relating to energy and environment. By focusing on issues such as air pollution, water scarcity and the lack of alternative transportation, this program becomes even more attractive for employers in the greater Phoenix area.
Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: The admission standards for majors in the Ira A. Fulton Schools of Engineering are higher than minimum university admission standards. International students may have an additional English-language proficiency criterion. Foreign
nationals must meet the same admission requirements shown below with the possible additional requirement of a minimum TOEFL score. If the university requires a TOEFL score from the applicant, (see http://global.asu.edu/future/undergrad) then admission to engineering requires a minimum TOEFL score of 550 (paper-based), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.
Freshman Admission:

- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; or 3.00 minimum ABOR GPA; or class ranking in top 25 percent of high school class, and
- No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
- No high school math or science competency deficiencies, and
- Minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, or 3.00 minimum ABOR GPA, or class ranking in top 25 percent of high school class.

Transfer students with 24 or more transferable college credit hours:

- Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
- No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Career Opportunities: Mechanical engineers are employed in virtually every kind of industry. They are involved in:

- Generating creative design and development.
- The production, control, management and sales of the devices and systems needed by society.
- Seeking new knowledge through research.

Therefore, a major strength of a mechanical engineering education is the flexibility it provides in future employment opportunities for its graduates. Students completing this concentration have opportunities as power plant designers, environmental consultants and heating, ventilation and air-conditioning (HVAC) engineers.
The objectives of the mechanical engineering program are for graduates to be employed in mechanical engineering or a related field or accepted to graduate school and:

- Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
- Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
- Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.


## Contact Information:

Engineering, Ira A. Fulton Schools of
Mechanical and Aerospace Engineering Program
http://engineering.asu.edu./macme
ECG 202
macme@asu.edu
480-965-2335

## Honors - Barrett, Honors College

## Honors College (9HOHONALL)

## Campus: DTPHX, POLY, TEMPE, WEST

Program Description: Barrett welcomes applications from highly-motivated, high-achieving, academically strong high school seniors and transfer students, as well as students currently enrolled at ASU. Prospective students may apply to Barrett after they have submitted an application to ASU. Admission information and the online application are available on the Barrett website. Barrett students complete a challenging honors curriculum through a combination of:

- Culminating honors thesis or creative project.
- Honors contracts.
- Honors study abroad.
- Honors-only seminars.
- Internships.
- Research.

Generally, students complete 36 hours of honors credits within the 120 credit hours required to earn a bachelor's degree. Details regarding the academic requirements can be viewed using the major map.

## Additional Program Fee: Y.

Second Language Requirement: N.

Admission Requirements: Students who have demonstrated high levels of academic achievement in high school or college may apply for admission to Barrett. All candidates for admission must file an application to Barrett separate from their ASU application and must be admitted to ASU before Barrett can consider their application.
Applicants are evaluated on the basis of:

1. High school GPA (Arizona Board of Regents GPA based on 16 competency courses).
2. High school class rank.
3. Performance on the SAT or ACT.
4. Talents that contribute to leadership and community service.

Continuing ASU or transfer students are evaluated on their college GPA. Please contact Barrett for more information.

## Contact Information:

Barrett, the Honors College
Barrett, the Honors College
http://barretthonors.asu.edu
SGHAL 101
480-965-4033

## Journalism, Walter Cronkite School of

## Journalism \& Mass Communication, BA (CSJMCBA)

Campus: DTPHX

Program Description: The Walter Cronkite School of Journalism and Mass Communication, named in honor of legendary CBS news anchor Walter Cronkite, is one of the largest and most successful professional journalism schools in the country. Students study print and online journalism, broadcast journalism, or strategic media/public relations, leading to a B.A. in journalism and mass communication. The Cronkite school is located at the ASU at the Downtown Phoenix campus, in the heart of the 13th largest media market in the U.S. The school features state-of-the-art computer labs, editing suites, production studios and classrooms dedicated to journalism education.

## Additional Program Fee: Y.

Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: The Bachelor of Arts in Journalism and Mass Communication degree program has higher admission requirements. Students should select a second major on the application. Students who are not admitted to the Cronkite School and who did not select a second major, or are not admissible to the second major, are admitted to Exploratory Social and Behavioral Sciences within University College.
Freshman applicants must meet the following standards:

- Have a $3.00(4.00=A)$ ABOR GPA;
- Have no English competency deficiencies; and
- Meet one of the following two requirements, top 25 percent of high school class, or 1040 SAT Reasoning or 22 ACT score.

Transfer students (with 12 or more transfer hours after high school graduation) are required to have a cumulative transfer GPA of 3.00 or higher and no English competency deficiencies. Transfers should contact the school for additional steps after admission to ASU. For more information regarding transfer admission, see http://cronkite.asu.edu/undergrad/xfer_major_change.php.

Career Opportunities: Walter Cronkite School of Journalism and Mass Communication graduates work for newspapers, radio and television stations, online services, magazines, public relations firms and corporate communication divisions. Positions include reporters, editors, photojournalists, writers and media managers.

## Contact Information:

Journalism, Walter Cronkite School of Walter Cronkite School of Journalism \& Mass Comm
http://cronkite.asu.edu
CRONK 302
cronkiteadvising@asu.edu
602-496-5555

Letters and Sciences, School of

## Applied Science (Technical Communication), BAS (LSTECBAS)

## Campus: POLY

Program Description: The B.A.S. is a flexible degree plan designed specifically for students who have earned an A.A.S. from a regionally accredited institution. This major combines the technical experience gained in the student's associate degree program with a broader education of management, leadership, critical thinking and communication skills.
Technical communication is applied workplace communication that makes technical information understandable and available to many audiences. In the technical communication concentration, students learn how to produce, design and manage information using both traditional and developing technologies.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: The Bureau of Labor Statistics estimates the need for writers and editors will increase by 25 percent during the next five years. Software and electronics companies, media corporations, financial institutions, government agencies, nonprofits and other areas will see an increased demand for writers. Students in the program will prepare for careers as:

- Desktop publishers.
- Information designers.
- Multimedia designers.
- Publications managers.
- Technical editors.
- Technical writers.
- Web page and intranet page designers.


## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 230
sls@asu.edu

## Communication, BA (LSCOMBA)

Campus: DTPHX, POLY
Program Description: The B.A. in communication focuses on teaching students how communication processes create, maintain and transform identities, relationships, workplaces and communities. Our mission statement is: Through the study and critique of human communication, we generate knowledge, creativity and understanding to facilitate healthy relationships and workplaces, civil and secure communities, and constructive intercultural interaction.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

## Admission Requirements:

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates of our program often attend leading graduate schools in communication, law schools and business schools, and/or find gainful employment in careers in areas of:

- Campaign management.
- Counseling.
- Criminal justice.
- Entrepreneurism.
- Event planning.
- Health care management.
- Human resource management.
- Intercultural relations.
- Marketing.
- Mediation.
- Nonprofit management.
- Public relations.
- Public service.
- Sales.


## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
UCNTR 300
sls@asu.edu
602-496-0658

## English, BA (LSENGBA)

Campus: POLY
Program Description: The B.A. in English focuses on effective writing, critical thinking and sophisticated reading of literary and nonliterary texts.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

## Admission Requirements:

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The B.A. in English prepares scholars and teachers for graduate or professional study and for careers in education, writing and other related fields. Career prospects for secondary language arts teachers in Arizona are particularly strong. More importantly, students in the program will develop skills that employers value, such as analyzing ideas and problems, finding and evaluating information, communicating effectively, and presenting clear and logical arguments. With these skills, graduates of the program can find jobs in:

- Creative and technical writing.
- Editing.
- Financial services.
- Government.
- Health care.
- Lobbying.
- Marketing.
- Nonprofit organizations.
- Program management.
- Public relations.
- Reporting.
- Social work.


## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 233
sls@asu.edu
480-727-1526

## General Studies, BGS (LSGNSBGS)

Campus: DTPHX
Program Description: The Bachelor of General Studies offers students a flexible, innovative path to degree completion. Graduates of the program will be informed and effective members of society, who are well-prepared for a changing global marketplace with its diverse cultures. The theme of this degree, offered by the School of Letters and Sciences on the Downtown Phoenix campus, is "Society and the Individual." Students will explore the tensions between individualism and collectivism, the public and private self, and the interplay of culture and identity.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

## Admission Requirements:

Career Opportunities: General studies majors have the option of working in almost any field that requires effective interaction with others, from sales to social services, organizational management to government administration. Graduates will be equipped with transferable skills highly desired by many employers; therefore, a wide array of job choices is available. The B.G.S. creates great flexibility in career choice because of the versatility within the program.
Graduates may choose to enter one of the areas for which their cluster prepares them, including:

- Advertising.
- Corporate communications.
- Government sectors.
- The helping professions.
- Higher education.
- Hospitality.
- Marketing.
- Media.
- Nonprofit administration.
- Sales.
- Tourism.


## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
UCENT 300
sls@asu.edu
602-496-4000

## History, BA (LSHISBA)

Campus: POLY

Program Description: The B.A. in history focuses on American history, European history, Southwest history, environmental history and related fields.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Cochise College, Maricopa County Community College District.

Career Opportunities: The B.A. in history prepares scholars and teachers for graduate and professional student and careers in education, writing and other related fields. Career prospects for secondary history and social studies teachers in Arizona are particularly strong. Students in the program develop skills in analyzing ideas and problems, finding and evaluating information, communicating effectively, and presenting clear and logical arguments. With these skills, graduates of this program can find jobs in public policy, government, lobbying, social work, program management, museum management, archiving, curating and with nonprofit organizations. The degree also prepares students to continue in graduate and professional programs.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 233
sls@asu.edu
480-727-1526

## Interdisciplinary Studies, BIS (LSBISBIS)

Campus: DTPHX, ONLNE, POLY, TEMPE, WEST
Program Description: Interdisciplinary studies is an approach to answering questions, solving problems and addressing contemporary social issues from multiple perspectives. Interdisciplinary students develop the intellectual tools needed to build bridges across academic disciplines and apply their skills, innovations and knowledge in various academic and practical settings. In core classes, students develop a portfolio that showcases each individual's skills, interests and talents. This portfolio and the applied learning experience provide each student with valuable resources for flexible, individualized career planning and development. The B.I.S. program may be completed in-person or online. Working with an academic success specialist, students choose from and combine two of more than 140 concentrations that represent academic interests they wish to integrate. Of these, the following concentrations are available to students attending in-person or online:

- Family and human development.
- Film and media studies.
- History (U.S. or European).
- Justice studies.
- Political science.
- Religious studies.
- Small business.
- Sociology.
- Technical writing.
- Women and gender studies.

A B.I.S. in organizational studies is also available online. For more information, visit http://asuonline.asu.edu/ or e-mail sls@asu.edu.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: The B.I.S. program is available to all students in good academic standing who have achieved sophomore, junior or senior standing. Students must complete the online B.I.S. cyber workshop (found online at http://sls.asu.edu/bis/) prior to meeting with an advisor to declare their major as interdisciplinary studies.

Career Opportunities: Because of the flexibility of the B.I.S. degree, graduates leave ASU ready for their next steps in life, whether employment in an entry-level position, promotional opportunities, or for graduate studies in a variety of disciplines. Recent examples include a graduate with biology and chemistry concentrations who is pursuing a master of pharmacy degree, another graduate who combined business and communication and now owns a small business, and another who integrated sociology and family studies to further a career in law enforcement.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
USAB 203
bis@asu.edu
480-965-1970

## Interdisciplinary Studies (Organizational Studies), BIS (LSORGBIS)

Campus: ONLNE
Program Description: The interdisciplinary studies online degree program is an approach to answering questions, solving problems and addressing contemporary social issues from multiple perspectives. Interdisciplinary students develop the intellectual tools needed to build bridges between academic disciplines and apply their skills, innovations and knowledge in various academic and practical settings. The B.I.S. in organizational studies is intended for students seeking an interdisciplinary degree and a desire to learn about the dynamics of contemporary organizations. Via the organizational studies curriculum, students gain valuable knowledge of management styles, communication strategies, technologies, diversity, ethics and politics. All course work for organizational studies is offered online, giving students freedom and flexibility in completing their requirements. By engaging in a breadth of knowledge and experience, and by acquiring the skills to integrate various domains of knowledge, students prepare themselves for careers in:

- Business.
- Government.
- Health care administration.
- Nonprofit agencies.
- Service industry.

Many organizational studies students already have a chosen career field, yet desire a degree that is versatile, flexible, meaningful and affords the opportunity for continued career development and advancement.

Additional Program Fee: N.
Second Language Requirement: N.

## Admission Requirements:

Career Opportunities: Because of the flexibility of the B.I.S. program, graduates leave ASU ready for their next steps in life, whether employment in an entry-level position, promotional opportunities, or for graduate studies in a variety of disciplines. Recent graduates have found opportunities in education, business, health care administration, nonprofit administration, tourism and many other exciting fields.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
UCENT 300
sls@asu.edu
602-496-0356

## Liberal Studies, BLS (LABLSBLS)

## Campus: ONLNE, TEMPE

Program Description: The B.L.S. is an online program that students can complete from anywhere in the world. The B.L.S. is an excellent choice for working adults and can sometimes be completed in as little as one year as a degree completion program. Students in the B.L.S. program are able to design their own transdisciplinary major based on their personal interests. For more information on eligibility requirements, visit the school website.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: Although a liberal studies major is not professionally or vocationally oriented, the program shares with all other liberal arts and science degrees the goal of developing analytical and communicative abilities. The program offers breadth of learning in an online setting. The liberal studies degree is transdisciplinary, providing the student with a "thematic" approach to his/her education. Liberal studies graduates are prepared to enter the work force or pursue graduate or professional studies at the completion of their undergraduate program.

## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 251F
BLS@asu.edu
480-727-5398

## Science, Technology and Society, BS (ECSTSBS) <br> Campus: POLY

Program Description: Questions surrounding the interaction of science, technology and human systems are highly interdisciplinary and cultural, requiring analytical techniques that transcend space and time. Thus, the science, technology and society program stresses the need to step outside both disciplinary and cultural boxes in pursuit of knowledge. Accordingly, the program is heavy on cultural and information literacy and critical thinking. The primary goal is to produce generalists who understand the intricate interrelationship of science, technology and society, and are armed with the technical skills to change their environment. The following tracks are available:

- Global technology and development and general science.
- Science, technology and governance.
- Technology and society.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: The bachelor's degree in science, technology and society prepares professionals and scholars for careers in the 21st-century world focusing primarily, but not exclusively, on the interaction of science and technology with human systems. The focus of the program is on developing the technical skills required to audit the social, political and policy impact of technological advancement, and the competence required to navigate questions surrounding the future trajectory of science and technology. Graduates are prepared for graduate or professional study, or professional careers in:

- Business.
- Education.
- Government.
- Law.
- Nonprofit organizations.


## Contact Information:

Letters and Sciences, School of
School of Letters and Sciences
http://sls.asu.edu/
SANCA 230
sls@asu.edu
480-727-1526

## Technical Communication, BS (LSTECBS)

Campus: ONLNE, POLY

Program Description: The B.S. in technical communication is the only undergraduate technical communication degree program available in the state of Arizona. Technical communication is applied workplace communication that makes technical information understandable and available to many audiences. In the technical communication program, students learn how to produce, design and manage information using both traditional and developing technologies.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Coconino Community College, Maricopa County Community College District, Yavapai College.

Career Opportunities: The Bureau of Labor Statistics estimates the need for writers and editors will increase by 25 percent during the next five years. Software and electronics companies, media corporations, financial institutions, government agencies, nonprofits and other areas will see an increased demand for writers. Students in the program will prepare for careers as:

- Desktop publishers.
- Information designers.
- Multimedia designers.
- Publications managers.
- Technical editors.
- Technical writers.
- Web page and intranet page designers.


## Contact Information:

Letters and Sciences, School of
School of Letters \& Sciences
http://sls.asu.edu/
SANCA 230
sls@asu.edu
480-727-1526
Liberal Arts and Sciences, College of

## African \& African American Studies, BA (LAAFRBA)

Campus: TEMPE
Program Description: African and African American studies (AAAS) is an interdisciplinary B.A. program that focuses on people of African descent throughout the world and the diversity of past and present experiences of those who live in:

- Africa.
- The Caribbean.
- Central America.
- South America.
- The United States.

As an institutional program, AAAS is structured to:

- Combine knowledge of the African diaspora with intellectual and practical training in specific areas to create more effective communities and global partnerships.
- Prepare students of all ethnicities to better understand, value and more effectively participate in our increasingly diverse society.
- Provide students with a foundation for advanced studies in such fields/professions as history, English, sociology, political science, communications, arts, public administration, law, psychology, social work, education and business.

Additional Program Fee: N.
Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Because of its emphasis on various social aspects and groups, AAAS provides students with practical applications useful for various workplaces. The minor requirement of AAAS helps students develop cultural sensitivity and prepares them for careers in:

- Administration.
- Advertising.
- Business.
- Counseling.
- Education.
- Human resources.
- International relations.
- Journalism.
- Justice.
- Management.
- Travel.

Our program prepares students for work in:

- Civil rights organizations.
- Colleges/universities.
- Corporations.
- Government agencies.
- Hotel chains.
- The insurance industry.
- Law firms.
- Libraries.
- Museums.
- Nonprofit organizations.
- The Peace Corps.
- Political action groups.
- Public relation firms.
- Research organizations.
- Sales departments.
- Social service agencies.
- Travel agencies.


## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://aaas.clas.asu.edu/
WILSN 140
aframstu@asu.edu
480-965-4399

## American Indian Studies, BS (LAAISBS)

Campus: TEMPE
Program Description: The B.S. in American Indian studies provides students with unique opportunities to evaluate issues of American Indian nations within a domestic and international context. The B.S. in American Indian studies encompasses two areas of emphasis, 1) legal, policy and community and economic development, and 2) arts, languages and culture. The American Indian Studies Program is committed to broadening the knowledge of students interested in the histories, languages, cultures, arts and contemporary situations of American Indian nations and people. The program is designed to protect the integrity and identity of the indigenous populations of North America and to create a learning environment conducive to critical and creative thought.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: American Indian Studies graduates will be qualified to fill positions at the tribal government, state, federal and private levels. Graduates can advance to graduate school or can pursue professional careers in such fields as government service or public service. For example, federal and tribally operated schools located in remote areas within Indian Country have high turnover rates for both teachers and staff. American Indian Studies graduates should be available to help fill these positions. Furthermore, the federal government, a major employer on many reservations across the country, is in need of qualified people who are knowledgeable of Indian cultures, laws and policies. Additionally, many American Indian nations economies and infrastructures are developing at a rapid pace, and they are in continuous need to fill mid-management and management-level positions.

## Contact Information:

Liberal Arts and Sciences, College of American Indian Studies Program http://americanindian.clas.asu.edu/ DHALL 356
AIS@asu.edu
480-965-3634

## Anthropology, BA (LAASBBA)

## Campus: TEMPE

Program Description: The B.A. program in anthropology gives students an opportunity to learn how and why humans evolved, and how our evolutionary biological, social and cultural trajectories help us understand the meaning of being human in past, present and future environments. Anthropology helps students develop strong critical thinking skills and oral and written expression, important to success in many careers areas.
Anthropology majors learn how to use the scientific method to formulate and test hypotheses and gather qualitative and quantitative data through participant observation, interviewing, ethnographic study, careful excavation and measurement. They also learn how to employ statistics to analyze data and from them extract meaning.
A special feature of the ASU anthropology program is its relevance to other disciplines, and many exciting hands-on learning opportunities through laboratories and field-based courses.

## Additional Program Fee: N.

Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The demand in the job market for people with an anthropology background is stimulated by a growing need for researchers and analysts with keen thinking skills who can manage, evaluate and interpret the large amounts of data on who we are, what we eat, what we wear, what we drive, where we like to live, the health issues that we face, and our impact on the environment. As the many spheres of human interaction expand globally, people trained in anthropology will increasingly be sought for their broad, holistic knowledge and perspective of understanding, which are the hallmarks of anthropology.

## Contact Information:

Liberal Arts and Sciences, College of
School of Human Evolution \& Social Change
http://shesc.asu.edu/undergraduate_studies
SHESC 233
shesc.undergrad@asu.edu
480-965-6215

## Anthropology, BS (LAASBBS)

## Campus: TEMPE

Program Description: The B.S. program in anthropology gives students an opportunity to master anthropological or anthropologically-relevant knowledge and skills through applications of the scientific method and quantitative methodologies. Anthropology is the study of how and why humans evolved, and how our evolutionary biological, social and cultural trajectories help us understand the meaning of being human in past, present and future environments. Through core and elective courses, the B.S. in anthropology program allows students to explore problems that may require the use of theories and methods from diverse disciplines, including biology, global health, applied mathematics, psychology, economics, sociology, medicine, law and engineering. Anthropology provides many exciting, hands-on learning opportunities through laboratories and field-based courses.

## Additional Program Fee: N.

Second Language Requirement: Y .
First Required Math Course: MAT 170 Precalculus.

## Career Opportunities:

- Acting as legal advocates in international cases.
- Analyzing and proposing policies.
- Consulting for large and small private and public organizations.
- Curating cultural resources.
- Directing programs in the private or public sector.
- Directing nonprofit organizations.
- Modeling infectious diseases.
- Planning communities.
- Postgraduate academic research and teaching.
- Professional employment in heritage (cultural resource) management in private or public sectors.
- Providing health care as nurses, doctors or public or global health professionals.


## Contact Information:

Liberal Arts and Sciences, College of
School of Human Evolution \& Social Change
http://shesc.asu.edu/undergraduate_studies
SHESC 233
shesc.undergrad@asu.edu
480-965-6215

## Applied Mathematics for Life and Social Sciences, BS (LAAMLBS)

Campus: TEMPE
Program Description: The B.S. in applied mathematics for the life and social sciences is a challenging and exciting curriculum that investigates and integrates complex areas of the physical, life and social sciences while preparing a new generation of students in mathematics. A primary objective of this program is for students to develop critical thinking skills and purposeful competencies in mathematics, as well as an appreciation for the contributions of mathematics to the fields of sciences, engineering, business, government, economics. Students learn how to use theories and techniques such as mathematical modeling and computational methods to resolve practical real-world problems. The course work is directed towards an understanding of mathematical theory and its relation to other fields of studies. Emphasis is placed on precision of definition, reasoning to accurate conclusions, and analyzing and developing solutions to problems using mathematical principles.

Additional Program Fee: N.
Second Language Requirement: N .
First Required Math Course: MAT 170 Precalculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The B.S. in applied mathematics for the life and social sciences provides students entering the environmental, life, health, mathematical and social science fields the quantitative, scientific and analytical skills that are critical, but still lacking for professionals working in these areas.
The need for quantitatively trained scientists and professionals in the life and social sciences is strong in Arizona and the nation. This degree's applied use of mathematics, modeling, statistics and simulation methodologies are in high demand and provide excellent training for future academics and professionals in a broad range of industries, including:

- Astrophysics.
- Biostatistics.
- Chemical engineering.
- Communications.
- Computational biology.
- Computer animation.
- Data mining.
- Demography.
- Digital and medical imaging.
- E-commerce.
- Education.
- Forensics.
- Genomics.
- Informatics/complex systems research.
- Materials science.
- Neuroscience.
- Pharmaceutical engineering.
- Political science.
- Public health.
- Risk management.
- Security/military.
- Social network analysis.


## Contact Information:

Liberal Arts and Sciences, College of
School of Human Evolution \& Social Change
http://shesc.asu.edu/undergraduate_studies
SHESC 233
shesc.undergrad@asu.edu
480-965-6215
Asia Studies (East Asia), BA (LAHSTEABA)
Campus: TEMPE

Program Description: The interdisciplinary B.A. in Asia studies offers students the opportunity to study South Asia, Southeast Asia, or East Asia in depth through a coherent concentration of academic study across a number of disciplines. The interdisciplinary approach will prepare students to deploy a variety of intellectual tools to address contemporary political, social and cultural issues in Asia and to apply their knowledge in various academic and practical settings. Students will identify which concentration (South, Southeast or East Asia) they will pursue.
The concentration in East Asia focuses on:

- China.
- Japan.
- Korea.
- Taiwan.


## Additional Program Fee: N.

Second Language Requirement: $Y$.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: People knowledgeable about Asia will be required in virtually every arena in which America interacts with the rest of the world, including:

- Communication.
- Diplomacy.
- Food security.
- Higher education.
- Humanitarian service.
- Intelligence.
- International organizations.
- Journalism.
- Law.
- Law enforcement.
- Military Studies.
- Philanthropy.
- Technology transfer.
- Tourism.
- Trade.
- Transportation.


## Contact Information:

Liberal Arts and Sciences, College of Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/asia_studies

## Asia Studies (South Asia), BA (LAHSTSABA)

Campus: TEMPE
Program Description: The interdisciplinary B.A. in Asia studies offers students the opportunity to study South Asia, Southeast Asia, or East Asia in depth through a coherent concentration of academic study across a number of disciplines. The interdisciplinary approach will prepare students to deploy a variety of intellectual tools to address contemporary political, social and cultural issues in Asia and to apply their knowledge in various academic and practical settings. Students will identify which concentration (South, Southeast or East Asia) they will pursue.
The concentration in South Asia focuses on:

- Bangladesh.
- India.
- Pakistan.
- South Asian states and societies.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: People knowledgeable about Asia will be required in virtually every arena in which America interacts with the rest of the world, including:

- Communication.
- Diplomacy.
- Food security.
- Higher education.
- Humanitarian service.
- Intelligence.
- International organizations.
- Journalism.
- Law.
- Law enforcement.
- Military studies.
- Philanthropy.
- Technology transfer.
- Tourism.
- Trade.
- Transportation.


## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/asia_studies
COOR 3307
SHPRSadvising@asu.edu
480-965-8364

Asia Studies (Southeast Asia), BA (LAHSTSEABA)
Campus: TEMPE

Program Description: The interdisciplinary B.A. in Asia studies offers students the opportunity to study South Asia, Southeast Asia, or East Asia in depth through a coherent concentration of academic study across a number of disciplines. The interdisciplinary approach will prepare students to deploy a variety of intellectual tools to address contemporary political, social and cultural issues in Asia and to apply their knowledge in various academic and practical settings. Students will identify which concentration (South, Southeast or East Asia) they will pursue.
The concentration in Southeast Asia focuses on:

- Brunei.
- Burma/Myanmar.
- Cambodia.
- East Timor.
- Indonesia.
- Laos.
- Malaysia.
- The Philippines.
- Singapore.
- Thailand.
- Vietnam.


## Additional Program Fee: N.

## Second Language Requirement: Y.

First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: People knowledgeable about Asia will be required in virtually every arena in which America interacts with the rest of the world, including:

- Communication.
- Diplomacy.
- Food security.
- Higher education.
- Humanitarian service.
- Intelligence.
- International organizations.
- Journalism.
- Law.
- Law enforcement.
- Military studies.
- Philanthropy.
- Technology transfer.
- Tourism.
- Trade.
- Transportation.


## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/asia_studies
COOR 3307
SHPRSadvising@asu.edu
480-965-8364
Asian Languages - Chinese, BA (LACHIBA)
Campus: TEMPE

Program Description: The B.A. in Asian languages with a concentration in Chinese strives to instill proficiency in reading, writing, and speaking Mandarin and in reading classical Chinese. It provides an in-depth understanding of the fundamentals of the rich Chinese cultural tradition, centered on primary Chinese texts (in both Chinese and English translation) from the literary, intellectual and religious cultures of Chinese-speaking societies. These texts include visual and written materials on, among other things:

- Linguistics.
- Literary theory and history.
- Media.
- Religions.
- Urban culture.

Students in the program have a number of options available for studying abroad, and for students with higher levels of linguistic competency, there are targeted courses (conducted in Chinese) offered as part of the Chinese Flagship track.

Additional Program Fee: N.

## Second Language Requirement: Y .

First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates have a variety of career opportunities. Many work for firms that deal with international trade for U.S. companies that have branches in China or for Chinese companies located either in the U.S. or China. Other graduates work for government agencies or teach (usually English) in China. Yet others pursue graduate work in Chinese studies, eventually teaching the language and/or culture in universities or colleges. Some find employment as K-12 teachers.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281
Asian Languages - Japanese, BA (LAJPNBA)
Campus: TEMPE

Program Description: Students in the B.A. in Asian languages with a concentration in Japanese program study the language, literature and culture of Japan. They gain a respectable measure of competence in reading, writing and oral/aural skills in the Japanese language. Students also gain linguistic and cultural competence through the required study of classical Japanese. Throughout the program, students take courses in either Chinese or Korean and related courses in Japanese and East Asian culture on topics such as:

- Art.
- Government.
- Japanese history.
- Linguistics.
- Literary and cultural theory.
- Religion.

In addition, ASU offers summer or yearlong overseas programs to study Japanese.
Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates have a variety of career opportunities. Many work for firms that deal with international trade for U.S. companies that have branches in Japan or for Japanese companies located either in the U.S. or Japan. Other graduates work for government agencies or teach (usually English) in Japan. Some pursue graduate work in Japanese studies, eventually teaching the language and/or culture in universities or colleges. High school and elementary teaching are also possible with certification.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Asian Pacific American Studies, BA (LAAPABA)

## Campus: TEMPE

Program Description: The B.A. in Asian Pacific American studies (APAS) is an interdisciplinary undergraduate degree focused on demographic, cultural, social, economic and policy issues that have shaped and continue to affect Asian American and Pacific Islander communities in Arizona, the Southwestern U.S., nationally and internationally. Students will study both the historical and contemporary experiences of Asian Americans and Pacific Islanders (AAPI), and gain knowledge about AAPI experiences and communities in Arizona, nationally, and within a larger global context.

Additional Program Fee: N.
Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Students who complete the B.A. in Asian Pacific American studies may pursue a graduate degree in law, humanities or social sciences. Students will also be prepared to work in positions involving:

- Business.
- Community organizations.
- Creative arts.
- Education.
- Health.
- Immigration.
- Journalism.
- Law.


## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://apas.clas.asu.edu
WILSN 342
apas@asu.edu
480-965-9711

## Biochemistry, BA (LABCHBA)

Campus: TEMPE
Program Description: The B.A. in biochemistry provides students with a course of study in the fundamental knowledge of the chemical substances and vital processes of living organisms. Discoveries of new drugs, the recognition and control of new pathogens, development of new catalysts for energy transformations and the production of new materials, and solutions to problems such as food production and environmental remediation depend upon a thorough grounding in this area of science.

## Additional Program Fee: Y.

Second Language Requirement: $Y$.
First Required Math Course: MAT 251 Calculus for Life Sciences.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A solid undergraduate education in biochemistry provides the necessary background for career paths in:

- Chemical industries.
- Government.
- Health care.
- Research.
- Teaching and other areas.

Students planning careers in medicine, dentistry, pharmacy or veterinary medicine often study biochemistry with supporting work in biology and chemistry as the route for preprofessional training.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PSD 102
chmugadv@asu.edu
480-965-3461

## Biochemistry, BS (LABCHBS)

Campus: TEMPE
Program Description: The B.S. in biochemistry provides students with a course of study in the fundamental knowledge of the chemical substances and vital processes of living organisms. Discoveries of new drugs, the recognition and control of new pathogens, development of new catalysts for energy transformations and the production of new materials, and solutions to problems such as food production and environmental remediation depend upon a thorough grounding in this area of science.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A solid undergraduate education in biochemistry provides the necessary background for career paths in:

- Chemical industries.
- Government.
- Health care.
- Research.
- Teaching and other areas.

Students planning careers in medicine, dentistry, pharmacy or veterinary medicine often study biochemistry with supporting work in biology and chemistry as the route for preprofessional training.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PSD 102
chmugadv@asu.edu
480-965-3461

## Campus: TEMPE

Program Description: The science of biochemistry is about the discovery and dissemination of fundamental knowledge of the chemical substances and vital processes of living organisms. Discoveries of new drugs, the recognition and control of new pathogens, development of new catalysts for energy transformations and the production of new materials, and solutions to problems such as food production and environmental remediation depend upon a thorough grounding in this area of science. The B.S. in biochemistry with a concentration in medicinal chemistry emphasizes aspects of biochemistry that will be useful to those planning careers in medically related areas.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A solid undergraduate education in biochemistry provides the necessary background for career paths in:

- Chemical industries.
- Government.
- Health care.
- Research.
- Teaching and other areas.

Students planning careers in medicine, dentistry, pharmacy or veterinary medicine often pursue the medicinal chemistry concentration, with supporting work in biology and chemistry as the route for preprofessional training.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PSD 102
chmugadv@asu.edu
480-965-3461

## Biological Sciences, BS (LABSCBS)

Campus: TEMPE
Program Description: The B.S. in biological sciences is designed for students who desire a broad background in many areas of biology, as preparation for professional school, or who want to postpone selection of a concentration until graduate school. The major provides students with a rigorous academic curriculum to develop the knowledge and skills to prepare for:

- Dental.
- Graduate school.
- Medical.
- Optometry.
- Other health professional schools.
- Physician assistant.
- Veterinary.

Biological sciences encompasses the study of all living things (e.g., microbes, plants and animals) and includes the study of:

- Basic organization and function (e.g., molecules, cells, tissues, organs).
- Development of biotechnology.
- How organisms evolve, their roles in the natural environment, and how hereditary information is transferred.

Additional Program Fee: Y.
Second Language Requirement: N.

First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College, Cochise College, Maricopa County Community College District, Yavapai College.

Career Opportunities: Students graduating with this degree are broadly trained and well prepared for admission into graduate programs and professional schools (medical, dental and veterinary). They may also directly enter positions in government, education, industry or certain technical fields.
Students exploring becoming a middle or high school teacher can find more information about the concurrent degree program at: http://catalog.asu.edu/concurrent_dual.

## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSC 206
sols.advising@asu.edu
480-727-6277

## Biological Sciences (Animal Physiology \& Behavior), BS (LABSCABS)

Campus: TEMPE
Program Description: The animal physiology and behavior concentration in the B.S. in biological sciences is intended for students interested in a broad, integrated education in the principles and mechanisms governing animal function and behavior. This concentration will prepare students for:

- Careers in basic and biomedically oriented research.
- Graduate-level study in physiology, neuroscience and animal behavior.
- Professional school in health professions (e.g., medical, physician assistant, veterinary, dental, optometry or other health professional school).

The requirements include upper division courses in the related fields of:

- Behavior.
- Neuroscience.
- Physiology.

Electives are designed to provide flexibility and ensure exposure to multiple levels of analysis.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students graduating with this degree are broadly trained and well prepared for admission into graduate programs and professional schools (e.g., medical, dental and veterinary). They may also directly enter positions in:

- Certain technical fields.
- Education.
- Government.
- Industry.


## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/

## Biological Sciences (Biology \& Society), BS (LABSCSBS)

Campus: TEMPE
Program Description: The biology and society concentration in the B.S. in biological sciences is designed to provide students with a working knowledge of life sciences and related sciences. Students gain the historical, philosophical, political and bioethical perspectives needed to explore interactions between the life sciences and related complex human issues. Subsequently, the program contributes to better-informed and more effective policymakers, teachers, writers and researchers in areas related to biology, medicine and society.
To achieve this, the curriculum is highly individualized including an independent research project. As a result, students have skills in:

- Analysis of ideas.
- Communication of ideas.
- Critical thinking.
- Grounding in the full range of sciences and statistics.
- Research.
- Writing.

This makes majors eligible for a broad range of different career options. Most majors have chosen to pursue graduate or professional degrees attending medical, law, public health and a range of graduate programs.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 251 Calculus for Life Sciences.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Our students have pursued diverse career paths. They have gone on to medical school, public health, law, environmental studies and graduate programs in such diverse areas as:

- Counseling psychology.
- Genetic.
- Genetic counseling.
- Health policy.
- History and philosophy of science.
- International disease studies and prevention.


## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSC 206
sols.advising@asu.edu
480-727-6277

## Biological Sciences (Conservation Biology and Ecology), BS (LABSCCBS)

Campus: TEMPE

Program Description: The conservation biology and ecology concentration in the B.S. in biological sciences is designed to provide students with a broad background in conservation biology and ecology, while allowing them to specialize in a particular area of interest. The concentration provides for training in:

- Behavioral ecology.
- Climate change.
- Conservation of endangered species.
- Population biology.
- Social and historical aspects of conservation.
- Urban ecology.

Conservation biology is the multidisciplinary science of conserving biological diversity. Biological diversity (biodiversity) is the totality of genes, species and ecosystems in a region, and this wealth of life on Earth is the product of millions of years of evolutionary history. Present threats to biodiversity are unprecedented, and biodiversity loss represents a concern for all of humanity. Conservation biologists investigate the impact of humans on the Earth's biodiversity, and develop practical approaches to prevent the extinction of species and promote the sustainable use of biological resources.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students graduating with this degree are broadly trained and well prepared for admission into graduate programs and veterinary school. They may also directly enter positions in:

- Education.
- Government.
- Industry.
- Nongovernmental organizations.
- Technical fields.


## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSC 206
sols.advising@asu.edu
480-727-6277

## Biological Sciences (Genetics, Cell \& Developmental Biology), BS (LABSCGBS)

Campus: TEMPE

Program Description: The genetics, cell and developmental biology concentration in the B.S. in biological sciences is intended for students interested in a flexible curriculum focused on the related fields of genetics, cell biology and developmental biology. This concentration will prepare students for careers in basic and biomedically oriented research or postbaccalaureate education. The major provides students with a rigorous academic curriculum to develop the knowledge and skills to prepare for:

- Dental.
- Graduate school.
- Medical.
- Optometry.
- Other health professional schools.
- Physician assistant.
- Veterinary.

The requirements include upper division courses in 1) genetics, cell, and developmental biology, and 2) the subdiscipline of comparative genomics. Elective courses permit students to further focus their education in one or more of these areas.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students graduating with this degree are well prepared for admission into graduate programs and professional schools (e.g., medical, dental and veterinary). They may also directly enter positions in:

- Education.
- Government.
- Industry.
- Technical fields.


## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSC 206
sols.advising@asu.edu
480-727-6277

## Chemistry, BA (LACHMBA)

## Campus: TEMPE

Program Description: Chemistry is a central science that connects the "hard sciences," including physics, with the "soft sciences," such as biology and medicine, and provides fundamental knowledge needed to deal with many needs of society. Discoveries of new materials, processes and solutions to problems such as pollution control depend upon a thorough grounding in this area of science. Students in the B.A. in chemistry program have opportunities to explore interests in analytical, inorganic, organic and physical chemistry as well as biochemistry, geochemistry, solid-state and materials chemistry. A secondary education B.A. with a specialization in chemistry is also available.

Additional Program Fee: Y.
Second Language Requirement: Y .
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A solid undergraduate education in chemistry provides the necessary background for many career paths in chemical industries, government and other areas. Chemistry can be combined with law for patent work, economics for sales and marketing careers, and computer science for careers in information storage and retrieval. Students planning careers in medicine, dentistry or veterinary medicine often pursue a course of study in chemistry with supporting work in biology as the route for preprofessional training.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PSD 102
chmugadv@asu.edu
480-965-3461

## Chemistry, BS (LACHMBS)

## Campus: TEMPE

Program Description: Chemistry is a central science that connects the "hard sciences," including physics, with the "soft sciences," such as biology and medicine, and provides fundamental knowledge needed to deal with many needs of society. Discoveries of new materials, processes and solutions to problems such as pollution control depend upon a thorough grounding in this area of science. Students in the B.S. in chemistry program have opportunities to explore interests in analytical, inorganic, organic and physical
chemistry as well as biochemistry, geochemistry, solid-state and materials chemistry. A secondary education B.A. with a specialization in chemistry is also available.

## Additional Program Fee: Y.

Second Language Requirement: N .
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A solid undergraduate program of education in chemistry provides the necessary background for many career paths in chemical industries, government and other areas. Chemistry can be combined with law for patent work, economics for sales and marketing careers, and computer science for careers in information storage and retrieval. Students planning careers in medicine, dentistry or veterinary medicine often pursue a course of study in chemistry with supporting work in biology as the route for preprofessional training.
Students exploring becoming a middle or high school teacher can find more information about the concurrent degree program at http://catalog.asu.edu/concurrent_dual.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PSD 102
chmugadv@asu.edu
480-965-3461

## Chemistry (Environmental Chemistry), BS (LACHMEBS)

## Campus: TEMPE

Program Description: Chemistry is a central science that connects the "hard sciences," including physics, with the "soft sciences," such as biology and medicine, and provides fundamental knowledge needed to deal with many needs of society. Discoveries of new materials, processes and solutions to problems such as pollution control depend upon a thorough grounding in this area of science. Students in the B.S. in chemistry program have opportunities to explore interests in analytical, inorganic, organic and physical chemistry as well as biochemistry, geochemistry, solid-state and materials chemistry. The environmental chemistry concentration is especially appropriate for those with strong interests in solving environmental problems.

## Additional Program Fee: Y.

Second Language Requirement: $N$.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A solid undergraduate program of education in chemistry provides the necessary background for many career paths in chemical industries, government and other areas. Chemistry can be combined with law for patent work, economics for sales and marketing careers, and computer science for careers in information storage and retrieval. Students planning careers in medicine, dentistry or veterinary medicine often pursue a course of study in chemistry with supporting work in biology as the route for preprofessional training. Students planning to work in environmentally related areas will find the environmental chemistry concentration especially appropriate.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Chemistry and Biochemistry
http://chemistry.asu.edu
PSD 102
chmugadv@asu.edu
480-965-3461

## Communication, BA (LACOMBA)

## Campus: TEMPE

Program Description: The B.A. in communication focuses on teaching students how communication processes create, maintain and transform identities, relationships, workplaces and communities. Our mission statement is: Through the study and critique of human communication, we generate knowledge, creativity and understanding to facilitate healthy relationships and workplaces, civil and secure communities, and constructive intercultural interaction.

## Additional Program Fee: N.

Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates of our program often attend leading graduate schools in communication, law schools and business schools, and/or find gainful employment in careers in the areas of:

- Campaign management.
- Counseling.
- Entrepreneurism.
- Event planning.
- Health care management.
- Human resource management.
- Intercultural relations.
- Marketing.
- Nonprofit management.
- Public relations.
- Sales.


## Contact Information:

Liberal Arts and Sciences, College of
Hugh Downs School of Human Communication
http://humancommunication.clas.asu.edu/
STAUF 412
communication@asu.edu
480-965-5095

## Communication, BS (LACOMBS)

Campus: ONLNE, TEMPE
Program Description: The B.S. in communication program focuses on teaching students how communication processes create, maintain and transform identities, relationships, workplaces and communities. Our mission statement is: Through the study and critique of human communication, we generate knowledge, creativity and understanding to facilitate healthy relationships and workplaces, civil and secure communities and constructive intercultural interaction.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates of our program often attend leading graduate schools in communication, law schools and business schools, and/or find gainful employment in careers in the areas of:

- Campaign management.
- Counseling.
- Entrepreneurism.
- Event planning.
- Health care management.
- Human resource management.
- Intercultural relations.
- Marketing.
- Nonprofit management.
- Public relations.
- Sales.


## Contact Information:

Liberal Arts and Sciences, College of Hugh Downs School of Human Communication http://humancommunication.clas.asu.edu/
STAUF 412
communication@asu.edu
480-965-5095

## Computational Mathematical Sciences, BS (LACMSBS)

## Campus: TEMPE

Program Description: Mathematics is a crucial component in many disciplines such as physics, engineering applications, business, economics, and in the life sciences and social sciences. The B.S. in computational mathematical sciences is an interdisciplinary degree, with components in mathematics, science and computing, and a focus on computational and numerical aspects of techniques used to solve a wide range of applied problems arising in practically any field of study.
A large component is geared towards understanding why and how computer algorithms work, as well as their limitations in terms of applicability and efficiency. This program is designed for students interested in computing and simulation of applied problems. It promotes creative skills and develops problem-solving tools needed in today's technological world.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.
Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (e.g., high-school or college teacher, university professor).
- Applied math (scientific computing).
- Biotechnology.
- Business (actuary for bank or insurance company, operations research).
- Computer.
- Engineering.
- Government (consultant, federal and state organizations).
- Graduate school (mathematics or other fields).
- Medicine.

A B.S. in computational mathematical sciences is perhaps the most versatile of all math degrees in that it can lead to a wider choice of career paths. Many careers require a command of quantitative methods; persons qualified in mathematics hold a favorable edge in competition for job opportunities. Profiles and descriptions of jobs and career paths of actual mathematicians in a wide array of fields are published by the American Mathematical Society.

## Contact Information:

Liberal Arts and Sciences, College of
School of Mathematical and Statistical Sciences
http://math.asu.edu/
PSA 211
math@asu.edu
480-965-7195

## Earth and Environmental Studies, BA (LAEESBA)

## Campus: TEMPE

Program Description: The B.A. in earth and environmental studies will provide a foundational understanding of the evolution of the Earth system with an emphasis on the planetary context for sustainable human societies. The degree includes broad training in the physical sciences, especially process-oriented geosciences that focus on Earth's life-sustaining surface environment. Advanced courses focus on topics including:

- Climate change.
- Earth's water, energy and material resources.
- Impacts of land-use change on human civilization.
- Physical, chemical and biological process interactions that define Earth's evolution.

The degree is designed as a liberal arts program with an emphasis on basic scientific literacy, not as a preparatory degree for graduate study in natural science. However, successful graduates will be prepared well for "green" professional careers in fields such as:

- Education.
- Environmental consulting.
- Environmental reporting.
- Natural resource management.
- Public planning.

Additional Program Fee: Y.
Second Language Requirement: $Y$.
First Required Math Course: MAT 117 College Algebra.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Coconino Community College.

Career Opportunities: School of Earth and Space Exploration earth and environmental studies graduates are prepared for positions in:

- Consultancy.
- Governmental agencies.
- Industry.
- Nongovernmental organizations.
- Nonprofit organizations.
- Regulatory agencies.
- Utilities.

They are also well prepared for admission to strong professional schools. Recent environmental awareness in business and government has created new employment opportunities (e.g., environmental coordinators, directors and managers). By developing a breadth of knowledge and experience, and by acquiring the skills to integrate various domains of knowledge, earth and environmental studies students prepare themselves for a variety of careers to help find solutions to tomorrow's environmental and sustainability challenges.

## Contact Information:

Liberal Arts and Sciences, College of
School of Earth and Space Exploration
http://sese.asu.edu
PSF 686
seseinfo@asu.edu
480-965-2213

## Earth \& Space Exploration, BS (LASESBS)

Campus: TEMPE

Program Description: The B.S. in earth and space exploration offers students an integrated education across earth sciences, planetary sciences, astrophysics and engineering. The degree incorporates:

- A learning community that includes both science and engineering students.
- Strong quantitative preparation.
- A yearlong collaborative capstone senior exploration project.

This strong foundation in geosciences, astrophysics and exploration engineering will prepare students for key roles in:

- Earth resources and exploration.
- Environmental and geologic engineering.
- Space research and industry.
- Water and environmental use policy.


## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The earth and space exploration major addresses critical future shortfalls in the national and regional training of the next generation of geoscientists and aerospace engineers. Arizona has an expanding space industry with major new investments and is prepared to engage new technologies to monitor and understand environmental issues in Arizona, the southwest and throughout the world. Students who major in earth and space exploration will have the tools, knowledge and understanding to address key problems of a global nature, whether they are working in the private or public sector.

## Contact Information:

Liberal Arts and Sciences, College of
School of Earth and Space Exploration
http://sese.asu.edu
PSF 686
seseinfo@asu.edu
480-965-5081

## Earth and Space Exploration (Astrobiology and Biogeosciences), BS (LASESABBS)

Campus: TEMPE

Program Description: Astrobiology is the study of the origins, evolution, distribution and future of life in the universe.
Biogeosciences focuses on the interaction of biological and geological processes on Earth at present and in the geologic past. These topics are closely related because the concepts of biogeoscience inform the study of planetary habitability and the search for habitable worlds. Therefore, the astrobiology and biogeoscience concentration is designed to offer students a strong foundation for exploring the interaction of geological and biological processes, how such interactions sustain life on Earth, and how they might operate on other planets. This scientific background is needed to contribute to the search for life on other planets as well as the exploration of extreme environments here on Earth. It also provides training in the interplay of forces that impact global change.

## Additional Program Fee: Y.

Second Language Requirement: Y.
First Required Math Course: MAT 170 Precalculus.
Career Opportunities: Students in the astrobiology program will be well prepared for graduate studies in this field. Because astrobiology is increasingly the motivation for NASA exploration missions, they will also be well suited for entry-level careers at NASA research centers. The degree also provides broad training across a range of science fields, giving students a strong background for careers in biomedical, environmental or sustainability areas.

## Contact Information:

Liberal Arts and Sciences, College of School of Earth and Space Exploration
http://sese.asu.edu
PSF 686
seseinfo@asu.edu
480-965-5081

## Earth and Space Exploration (Astrophysics), BS (LASESABS)

Campus: TEMPE
Program Description: The B.S. in earth and space exploration with a concentration in astrophysics is designed to offer students a fundamental grounding in astronomy and astrophysics, with exposure to the related fields of geology, planetary science and engineering. Students will emerge from this program with the skills to pursue a career in astrophysics, physics or related fields. The rigorous course work includes a combination of physics courses taught in the School of Earth and Space Exploration and the Department of Physics. Students should emerge from the program with the ability to compete at the national level on standardized physics exams. The tools of astronomical discovery are increasingly dependent on technological advances, and students will be exposed to engineering principles. Through the capstone project in the senior year, students will gain valuable experience in translating science drivers into engineering specifics.

## Additional Program Fee: Y.

Second Language Requirement: Y.
First Required Math Course: MAT 265 Calculus for Engineers I.

Career Opportunities: Some of the listed careers may require advanced degrees or additional certifications. Career opportunities include but are not limited to:

- Aerospace engineer.
- Astrobiologist.
- Astronomer.
- Computer programmer.
- Data analyst.
- Graduate student.
- Instrumentation specialist.
- Planetary scientist.
- Science policy intern.
- Science writer.
- Teacher.
- Telescope operator.


## Career settings include:

- Federal government.
- K-12 schools.
- Manufacturing.
- Museums.
- NASA facilities.
- National laboratories.
- NSF facilities.
- Observatories.
- Planetariums.
- Publishing.
- Space industries.
- Universities/colleges.


## Contact Information:

Liberal Arts and Sciences, College of School of Earth and Space Exploration
http://sese.asu.edu
PSF 686
seseinfo@asu.edu

## Earth and Space Exploration (Exploration Systems Design), BS (LASESESDBS)

## Campus: TEMPE

Program Description: The exploration system design concentration is designed to offer students a fundamental grounding in geology, physics and astrophysics, while providing the tools to enable them to design and build hardware and software to achieve specified scientific goals.
At the heart of the program is a sound grounding in the fundamentals of physics, mathematics and chemistry. Upon that foundation we explicitly tackle issues concerning hardware design, instrument assembly and ultimately how to knit these components together when conceiving the requirements needed for a mission or project destined for space or another planet.
As part of this degree, each student will have the opportunity to learn about how projects and missions are designed and planned, starting with the scientific drivers and from there defining engineering specifications. Each student will be expected to complete a senior project that takes a desired scientific measurement and realizes the technological solution to achieve the observation.

## Additional Program Fee: Y.

Second Language Requirement: Y .
First Required Math Course: MAT 265 Calculus for Engineers I.

Career Opportunities: Some of the listed careers may require advanced degrees or additional certifications. Career opportunities include but are not limited to:

- Astronomer.
- Geoscientist.
- Graduate student.
- Planetary scientist.
- Scientific instrumentation specialist.
- Science policy intern.
- Science writer.
- Space systems engineer.
- Systems engineer.

Sample career settings include:

- Aerospace industry.
- Federal government.
- Manufacturing.
- NASA centers.
- National laboratories.
- Observatories.
- Publishers.
- Space industries.
- Universities/colleges.


## Contact Information:

Liberal Arts and Sciences, College of
School of Earth and Space Exploration
http://sese.asu.edu
PSF 686
seseinfo@asu.edu
480-965-5081

## Earth and Space Exploration (Geological Sciences), BS (LASESGSBS)

Campus: TEMPE
Program Description: Geological science is the study of the Earth and other planets with emphasis on the processes that have shaped them since the origin of the solar system, including the co-evolution of life, oceans, atmosphere and the Earth's climate system, and the record of that evolution encoded in rocks, soil, ice and isotopes. The B.S. in earth and space exploration with a
concentration in geological sciences educates students in the fundamentals of the geological sciences, providing a solid background in chemistry, mathematics and physics, as well as interdisciplinary training in engineering, astronomy and planetary science. Students will gain a strong understanding of field methods as well as modern computing, remote sensing and instrumentation, in order to effectively study the natural environment and Earth's resources. Graduates of the program will learn to apply their knowledge for the benefit of the nation, Arizona and society in general.

## Additional Program Fee: Y.

Second Language Requirement: $Y$.
First Required Math Course: MAT 170 Precalculus.
Career Opportunities: Some of the listed careers may require advanced degrees or additional certifications. Sample careers include:

- Environmental geologist.
- Geological engineer.
- Geologist.
- Graduate student.
- Mining geologist.
- Petroleum geologist.
- Science policy intern.
- Science writer.

Sample career settings include:

- Environmental industry.
- Geotechnical industry.
- Mining and petroleum.
- Museums.
- Publishers.


## Contact Information:

Liberal Arts and Sciences, College of
School of Earth and Space Exploration
http://sese.asu.edu
PSF 686
seseinfo@asu.edu
480-965-5081

## Economics, BS (LAECNBS)

Campus: TEMPE
Program Description: The program requires a strong core of economic theory, supplemented by mathematics and data analysis. Students in our B.S. program choose from a variety of electives within the department, as well as in the College of Liberal Arts and Sciences and the university. All students are encouraged to develop programs of study tailored to their individual needs and interests. The department's undergraduate program aims to provide students with the critical thinking and communication skills needed to succeed in business or graduate school. The mission of the Department of Economics at ASU is to provide the highest quality instruction to our students, conduct cutting-edge research in economics, and provide leadership and service to our professional communities.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students who have sought careers following their undergraduate education have been very successful in:

- Business.
- Consulting.
- Government.

Our graduates have taken positions as:

- Consultants who serve as advisors to both state and federal governments as well as private corporations.
- Corporate economists who collect data and make forecasts concerning the nature of the firm's business.
- Economic analysts for banks and financial firms.

Others have gone on to the best law schools in the country, or to the top Ph.D. and M.B.A. programs here and abroad. Finally, many of our graduates have won prestigious national awards, such as the Marshall Award, the NSF Fellowship, Fulbright fellowships and the Truman Award.

## Contact Information:

Liberal Arts and Sciences, College of
Economics Program in CLAS
http://wpcarey.asu.edu/ecn
BAC 659
wpcareyecn@asu.edu
480-965-3531

## English (Creative Writing), BA (LAENGCBA)

Campus: TEMPE
Program Description: The B.A. in English offers concentrations in creative writing, linguistics or literature. Students in the creative writing concentration study and practice the art of writing poetry and fiction. The faculty in the Department of English offer courses in:

- Comparative literature.
- Creative writing.
- English as a second language
- English education.
- English linguistics, literature and language.
- Rhetoric and composition.

Students engage in community outreach and in such diverse cross-disciplinary offerings as discourses of cultural encounters, borderlands, intercultural studies and technologies. A secondary education B.A. with a specialization in English is also available.

## Additional Program Fee: N.

## Second Language Requirement: Y .

First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: With a degree in English, students' career options are virtually endless. Employers in all fields are always looking for workers with strong writing and communication skills and the ability to think critically. Some of the most common professions for English majors are:

- Business.
- Editing.
- Journalism.
- Law.
- Medicine.
- Nonprofit community service.
- Professional writing.
- Public relations.
- Publishing.
- Teaching.
- Web content development.


## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://english.clas.asu.edu/
LL 542
englishadvising@asu.edu
480-965-3168

## English (Linguistics), BA (LAENGNBA)

Campus: TEMPE
Program Description: The B.A. in English offers concentrations in creative writing, linguistics or literature. Students in the linguistics concentration focus on study of the history and structure of language. The faculty in the Department of English offer courses in:

- Comparative literature.
- Creative writing.
- English as a second language.
- English education.
- English linguistics, literature and language.
- Rhetoric and composition.

Students engage in community outreach and in such diverse cross-disciplinary offerings as discourses of cultural encounters, borderlands, intercultural studies and technologies. A secondary education B.A. with a specialization in English is also available.

Additional Program Fee: N.
Second Language Requirement: $Y$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: With a degree in English, students' career options are virtually endless. Employers in all fields are always looking for workers with strong writing and communication skills and the ability to think critically. Some of the most common professions for English majors are:

- Business.
- Journalism.
- Law.
- Medicine.
- Nonprofit community service.
- Professional writing and editing.
- Public relations.
- Publishing.
- Teaching.
- Web content development.


## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://english.clas.asu.edu/
LL 542
englishadvising@asu.edu
480-965-3168

## English (Literature), BA (LAENGTBA)

Program Description: The B.A. in English offers concentrations in creative writing, linguistics or literature. Students in the literature concentration study British, American and global literatures in English from the earliest writings to the present. The faculty in the Department of English offer courses in:

- Comparative literature.
- Creative writing.
- English as a second language.
- English education.
- English linguistics, literature and language.
- Rhetoric and composition.

Students engage in community outreach and in such diverse cross-disciplinary offerings as discourses of cultural encounters, borderlands, intercultural studies and technologies. A secondary education B.A. with a specialization in English is also available.

## Additional Program Fee: N.

Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: With a degree in English, students' career options are virtually endless. Employers in all fields are always looking for workers with strong writing and communication skills and the ability to think critically. Some of the most common professions for English majors are:

- Business.
- Journalism.
- Law.
- Medicine.
- Nonprofit community service.
- Professional writing and editing.
- Public relations.
- Publishing.
- Teaching.
- Web content development.


## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://english.clas.asu.edu/
LL 542
englishadvising@asu.edu
480-965-3168

## Family \& Human Development, BS (LAFASBS)

Campus: ONLNE, TEMPE

Program Description: The B.S. in family and human development offers course work on the development of individuals and families as they relate to their social worlds. The required concentration in family studies and child development provides a focus on the development of children, adults and families. Students take a wide variety of courses on contemporary issues related to human development from infancy through the end of the life span, and the development, formation and dissolution of families and develop proficiency in written communication, computer skills, statistics and research methods.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District, Yavapai College.

Career Opportunities: As a liberal arts degree, the B.S. in family and human development not only provides excellent preparation for future graduate work in family and developmental sciences, social work, law, medicine and counseling, it also prepares undergraduates for direct entry into positions in business, social service and government.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social and Family Dynamics
http://ssfd.clas.asu.edu/
SS 144
email@ssfd.info
480-965-6978

## Film (Film \& Media Studies), BA (LAFMSBA)

Campus: ONLNE, TEMPE

Program Description: The B.A. in film with a concentration in film and media studies provides students with an opportunity for interdisciplinary study of film and media. The core faculty are nationally and internationally recognized scholars, with terminal degrees from the nation's top film and media programs. Their innovative curriculum focuses on teaching students to understand how film, television, video and computer games, new media and entertainment culture represent and influence our society. Students interested in the B.A. in film in the College of Liberal Arts and Sciences complete a concentration in film and media studies, and students accepted into the B.A. in film in the Herberger Institute for Design and the Arts complete a concentration in film and media production. The concentrations include core courses and electives in the areas of critical studies and film production.

Additional Program Fee: $N$.
Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: The film and media studies concentration provides undergraduates with skills that can be applied in a number of professional fields. It prepares students for a variety of career opportunities as leaders within the media entertainment industries, including:

- Creative management.
- Critics.
- Development.
- Marketing and regulation.
- Teachers.

Former students of film and media studies have gone on to pursue graduate studies at other pretigious universities. Others have selected career paths in the film, media and entertainment industries.

## Contact Information:

Liberal Arts and Sciences, College of
Department of English
http://film.asu.edu/major
LL 641
filminfo@asu.edu
480-965-6747

## French, BA (LAFREBA)

Campus: TEMPE
Program Description: Students in the B.A. in French program study the language, literature and culture of France and Francophone countries. They gain a respectable measure of competence in reading, writing and oral/aural skills in the French language. They are required to take a number of related courses on topics such as:

- Art.
- Cultural theory.
- French history.
- Government.
- International business.
- Linguistics
- Literary theory.
- Religion.

To help students gain proficiency in the language, the French section has an active French Club, conversation hours and film screenings. In addition, ASU also offers study abroad and exchange programs in France and Quebec, Canada, during the summer and academic year.

Additional Program Fee: N.

## Second Language Requirement: $Y$.

First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates have a variety of career opportunities in:

- Airlines.
- Education or government service.
- International trade firms.
- U.S. companies that have branches in France.

Many pursue graduate work in French, eventually teaching the language and culture in universities or colleges. With state certification, high school teaching is also a possibility.

## Contact Information:

Liberal Arts and Sciences, College of School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Geography, BA (LAGCUBA)

## Campus: TEMPE

Program Description: Geographers have a unique spatial perspective in understanding the modern world, global to local, through the twin lenses of space and place. The B.A. in geography emphasizes humanistic and cultural traditions, and students pursuing undergraduate studies in geography typically concentrate knowledge-building in understanding various cultural phenomena, or in studying regions such as:

- Asia.
- Africa.
- Europe.
- Latin America.

Additional Program Fee: N.
Second Language Requirement: $Y$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

## Career Opportunities: B.A. geographers go on to careers as:

- Community developers.
- Foreign service.
- Geodemographic analysts.
- Governmental organizations.
- Intelligence analysts.
- International trade consultants.
- Nongovernmental organizations.
- Public sector transportation planners.
- Teachers.
- Urban and regional planners.


## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/
COOR 5673
geoplan@asu.edu
480-965-7533

## Geography, BS (LAGCUBS)

Campus: TEMPE

Program Description: Geographers have a unique spatial perspective in understanding the modern world, global to local, through the twin lenses of space and place. A B.S. in geography emphasizes spatial patterns in natural science features such as:

- Landforms.
- Plants.
- Water.
- Weather.

Or in social science/environmental science dynamics involving:

- Economic patterns.
- Human populations.
- Transportation.


## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: With a focus on geospatial techniques, B.S. geographers go on to careers as:

- Cartographers.
- Computer cartographers.
- Environment impact analysts.
- Geographic information system (GIS) specialists and analysts.
- Geospatial software developers.
- Hydrology and water resource specialists.
- Location analysts for businesses.
- Remote sensing analysts.

Graduates are presented with a host of other geospatial career options in the burgeoning fields of geographic information science (GISci), mapping and navigation systems.

## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/
COOR 5673
geoplan@asu.edu
480-965-7533

## Geography (Meteorology-Climatology), BS (LAGCUMBS)

Campus: TEMPE

Program Description: The meteorology-climatology concentration under the B.S. in geography is designed to meet the requirements of certification as a meteorologist by the National Weather Service. As such, it requires a heavy concentration on:

- Dynamic meteorology (atmospheric physics).
- Mathematics (requiring three semesters of calculus).
- Physics (two semesters of university or calculus-based physics).
- Synoptic meteorology (operational weather forecasting).


## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students successfully completing the program have found employment with:

- Energy power companies (e.g., Salt River Project and Arizona Public Service).
- Government agencies (e.g., Arizona Department of Environmental Quality, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers).
- Graduate work in either meteorology or climatology.
- National Weather Service.
- U.S. Air Force (in either meteorology or pilot training).


## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/
COOR 5673
geoplan@asu.edu
480-965-7533

## Geography (Urban Studies), BS (LAGCUUBS)

## Campus: TEMPE

Program Description: The urban studies concentration under the B.S. in geography is designed to facilitate the growing interest in urban areas, with special emphasis on studying the Phoenix metropolitan area and other rapidly urbanizing regions in arid climates. Tied with geographic information systems (GIS), the urban studies major brings both knowledge and skill sets together in a powerful way. This program, with its focus on GIS, is a viable alternative to the urban planning degree, which has restrictive enrollment.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students successfully completing the program often find employment with city planning agencies, as well as government agencies at various levels (e.g., county, state, federal). The urban studies major, especially when combined with a focus on GIS, gives graduates an advantage in careers in urban planning and other jobs dealing with urban issues, including:

- Economic development planning.
- Housing issues.
- Transportation.


## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/
COOR 5673
geoplan@asu.edu
480-965-7533

## German, BA (LAGERBA)

## Campus: TEMPE

Program Description: Students in the B.A. in German program study the language, literature and culture of German-speaking countries. They gain a respectable measure of competence in reading, writing and oral/aural skills in the German language. They are required to take a number of related courses on topics such as:

- Art.
- German history.
- Government.
- International business.
- Religion.

Students are encouraged to study abroad in Germany as participants in ASU's summer program in Regensburg, or one of the academic-year exchange programs available at several German universities.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates have a variety of career opportunities in:

- Airlines.
- International trade firms.
- U.S. companies that have branches in Austria, Germany and Switzerland and other fields.

German is also useful in Eastern and Southeastern Europe. Some students decide to pursue graduate work, eventually teaching the language and culture in universities or colleges. With state certification, high school teaching is also an option.

## Contact Information:

Liberal Arts and Sciences, College of School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Global Health, BA (LASSHBA)

Campus: TEMPE

Program Description: The B.A. in global health is an interdisciplinary degree designed for students who seek a broad and flexible set of skills for understanding contemporary health challenges and thinking about how they might best be solved. "Global" is understood in the anthropological sense, meaning ways of understanding and addressing disease, health and well-being that can incorporate all cultures, places and time, and that can integrate knowledge of health's social, historical, biological and ecological dimensions.
The curriculum emphasizes the development of core skills in critical thinking and problem solving and the importance of direct experience (research, study abroad, service learning and advocacy). The degree cultivates capacities to deal with any complex problem with social components: how to identify the critical issues, ask the right questions and create solutions that are meaningful and effective.
Students are required to participate in an approved global health study abroad program

## Additional Program Fee: N.

Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Nationally and internationally, the health field provides enormous and varied career opportunities, and demands for graduates with skills are high and growing. The major would support the goals of those who plan to pursue careers in academic research, teaching, and in health services, whether in universities, government agencies, departments of health, international agencies (WHO, CDC, Global Health Council, World Bank, Interamerican Development Bank), non-governmental organizations, or in private business or industry. The degree also provides those who plan advanced specialist health training, such as in nursing, medicine, dentistry or pharmacy, with a broad intellectual base that enhances later specialist training.
In Arizona and elsewhere, there is a pressing need for professionals with appropriate skills to work in cross-cultural settings or with underserved populations (such as migrants, minorities and those living in poverty), and many of these jobs are directly or indirectly related to health.

## Contact Information:

Liberal Arts and Sciences, College of
School of Human Evolution \& Social Change
http://shesc.asu.edu/undergraduate_studies
SHESC 233
shesc.undergrad@asu.edu
480-965-6215

## Global Studies, BA (LASGSBA)

Campus: TEMPE

Program Description: The global studies program addresses some of the most challenging issues through teaching, research, and public policy activities. They include:

- Economic and social development under globalization.
- Global climate change.
- Justice and human rights.
- Migration and global households.
- Pandemics and global health.
- Religious conflicts and rights.
- The role of global cities.
- World heritage.

Within the program's intellectual framework, students are required to take courses in at least two areas of emphasis, providing them with a broad understanding of global processes and institutions. Areas of emphasis include:

- Cultural perspectives and place.
- Economic development.
- Environment.
- Global governance.
- Urban systems.
- Violence, conflict and human rights.

Global studies faculty members orient their work toward solving global issues, not around traditional disciplines; they have been recruited from highly diverse backgrounds including:

- Economics.
- Law.
- Geography.
- Anthropology.
- Planning.
- Political science.
- Sociology.


## Additional Program Fee: N.

Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: The program prepares students for professional and graduate training (including law, business and public policy) and provides professional training to future decision-makers in government, business and policy entities.

## Contact Information:

Liberal Arts and Sciences, College of
School of Politics and Global Studies
http://pgs.clas.asu.edu/
COOR 6705
globalstudies@asu.edu
480-965-8563

## History, BA (LAHISBA)

Campus: ONLNE, TEMPE
Program Description: Students in the B.A. in history program study the growth and development of human society from all aspects:

- Cultural.
- Economic.
- Political.
- Social.

Students are required to complete course work in one geographic emphasis. The department covers the history of:

- Europe.
- the U.S.
- Asia.
- Latin America.
- Africa.

Courses are designed to give students both breadth and depth in understanding today's complex world.
Students considering the Online campus B.A. in history program should contact the program's academic advisor, Manisha Master, for more information.

Additional Program Fee: N.
Second Language Requirement: $Y$.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Cochise College, Maricopa County Community College District, Yavapai College.

Career Opportunities: History majors seek jobs in:

- Business and industry.
- Education.
- Government.

They pursue graduate study in:

- Business.
- History.
- Justice studies.
- Law.
- Medicine.
- Public administration.
- Public history.
- Theology.

History is an excellent pre-professional major for:

- Business.
- Justice studies.
- Law.
- Medicine.
- Public administration.
- Public history.
- Theology.

A high-quality record as a history major indicates to employers and admissions officers that the student has acquired a respectable degree of literacy. It also demonstrates that the student has the ability to conduct research, assimilate material, read critically and evaluate conflicting interpretations of events.

## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/history
COOR 3307
SHPRSadvising@asu.edu
480-965-8364

## Integrated Studies, BA (LAISTBA)

Campus: TEMPE

Program Description: The integrated studies program is not a general studies major, but a unique and highly focused plan of study for gifted students whose academic interests are not served by the more traditional disciplinary studies. Superior students whose interests lie beyond the traditional departmental emphases have the opportunity to work with various faculty members in creating an individualized B.A. plan.
Students who elect an integrated studies major pursue a coherent course of study involving more than one department or college. Students majoring in integrated studies transcend the traditional disciplinary structure of the college to concentrate on individually designed areas of study not covered by the traditional major and minor.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Admission Requirements: Not available to freshmen. There is an additional application for this degree. Admissions consist of completion of 32 credit hours at ASU with a GPA of at least 3.25 and three letters of recommendation from ASU faculty members. For more information contact the assistant dean for academic affairs, Office of Student and Academic Programs, Fulton Center, Suite 110.

Career Opportunities: An integrated studies major may or may not be professionally or vocationally oriented, depending on the area of concentration. All integrated studies majors, however, share with all other liberal arts and sciences students the goal of developing analytical and communicative abilities. The program combines breadth of learning with an appropriate depth in some focused area of inquiry. Integrated studies graduates are prepared to enter the work force or pursue graduate or professional studies at the completion of their undergraduate program.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://clas.asu.edu/students
FULTN 110
CLASUndergrad@asu.edu
480-965-6506

## Integrated Studies, BS (LAISTBS)

Campus: TEMPE

Program Description: The integrated studies program is not a general studies major, but a unique and highly focused plan of study for gifted students whose academic interests are not served by the more traditional disciplinary studies. Superior students whose interests lie beyond the traditional departmental emphases have the opportunity to work with various faculty members in creating an individualized B.S. plan.
Students who elect an integrated studies major pursue a coherent course of study involving more than one department or college.
Students majoring in integrated studies transcend the traditional disciplinary structure of the college to concentrate on individually designed areas of study not covered by the traditional major and minor.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Not available to freshmen. There is an additional application for this degree. Admissions consist of completion of 32 credit hours at ASU with a GPA of at least 3.25 and three letters of recommendation from ASU faculty members. For more information contact the assistant dean for academic affairs, Office of Student and Academic Programs, Fulton Center, Suite 110.

Career Opportunities: The integrated studies program may or may not be professionally or vocationally oriented, depending on the area of concentration. However, the program shares with all other liberal arts and science degrees the goal of developing analytical and communicative abilities. The program combines breadth of learning with an appropriate depth in some focused area of inquiry. Integrated studies graduates are prepared to enter the work force or pursue graduate or professional studies at the completion of their undergraduate program.

## Contact Information:

Liberal Arts and Sciences, College of
Dean, College of Liberal Arts and Sciences
http://clas.asu.edu/undergraduate_studies
FULTN 110
CLASUndergrad@asu.edu
480-965-6506

## International Letters and Cultures, BA (LASLCBA)

Campus: TEMPE
Program Description: The B.A. in international letters and cultures is a degree grounded in the study of at least one foreign language. It is a more transcultural and transdisciplinary degree than a traditional languages and literature degree and is designed to
encourage students to explore and even challenge the traditional boundaries of cultures, texts and disciplines. Students choose a program that requires study and research in a minimum of two cultures or disciplines (or both). Students must meet with an advisor in the School of International Letters and Cultures to discuss this degree option.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: This degree program will provide essential skills that employers in government, education and various business sectors are looking for, including:

- Knowledge of other cultures.
- Strong written and oral communication skill.
- Proficiency in another language or languages.
- Valuable critical thinking and analytical skills.


## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## International Letters \& Cultures (Classics), BA (LASLCCBA)

## Campus: TEMPE

Program Description: The B.A. in international letters and cultures with a concentration in classics allows students to pursue a traditional degree in classics in a non-traditional way. Students are expected to acquire the traditional skills in the core ancient languages and history (with an emphasis in either ancient Greek or Latin language), but they are also asked to seek out courses in several departments across the university and tailor their degree to whatever aspect of classical scholarship appeals to them. This classics degree, therefore, encourages academic enterprise and intellectual and cultural diversity among individual students.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: The reasoning, research, language, and analysis skills developed in study of the classics are well suited for many careers, particularly in:

- Business.
- Education.
- Law.


## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/
LL 440
silcadvising@asu.edu
480-965-6281
Italian, BA (LAITABA)
Campus: TEMPE

Program Description: Students in the B.A. in Italian program study the language, literature and culture of Italy. They gain a respectable measure of competence in reading, writing and oral/aural skills in the Italian language. They are required to take a number of related courses on topics such as:

- Art.
- Government.
- Italian history.
- Religion.

A summer program in Florence, Italy, is available for students who wish to study the language and culture while living in the country. There are also study abroad programs in various cities in Italy during the academic year.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: There are numerous career opportunities for Italian graduates in:

- Airlines.
- Art museums.
- International trade firms, including U.S. companies that have branches in Italy.
- And other fields.

Some graduates pursue doctoral studies, eventually teaching the language in universities or colleges.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Jewish Studies, BA (LAJSTBA)

Campus: TEMPE
Program Description: The Jewish studies major offers an interdisciplinary, cross-cultural program of study in the humanities, which examines ethical, religious and spiritual values; a range of philosophical and political viewpoints; and provides a balance to the study of contemporary science and technology. The major focuses on the study of Judaism, defined as the civilization of the Jews; considers Jewish history and modern life; enhances the student's understanding of Jewish contributions to Western civilization; and facilitates enhanced cultural awareness and global perspective.

## Additional Program Fee: N.

Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Jewish Studies is an an interdisciplinary, cross-cultural, core discipline within the humanities which explores ethical, religious and spiritual values and provides a balance to the study of contemporary science and technology. Students who receive a B.A. in Jewish studies and pursue a career with one of the hundreds of U.S. companies that do business in Israel will have a competitive edge because of their familiarity with the Hebrew language and Jewish culture. Jewish studies graduates are also prepared to:

- Attend rabbinical seminary in preparation to become a community rabbi or chaplain.
- Engage in world political and economic issues.
- Pursue advanced education in Jewish professional service field(s).
- Pursue advanced degrees related to their area of interest. Examples areas may include:
- History and society, e.g., archaeology, history, justice studies, poltical science.
- Religion and thought, e.g., ethics, law, philosophy, religious studies.
- Literature and culture, e.g., creative writing, film and media, journalism.


## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://jewishstudies.clas.asu.edu/
COOR 3rd floor advising center
SHPRSAdvising@asu.edu
480-727-6906

## Justice Studies, BA (LAJUSBA)

Campus: TEMPE

Program Description: The B.A. in justice studies is intended for undergraduate students with an interest in an interdisciplinary examination of the philosophical, historical and cultural dimensions of contemporary justice issues. Like the justice studies B.S., the B.A. emphasizes five core areas of study:

- Citizenship, migration and human rights.
- Gobalization, sustainability, and economic justice.
- Law, policy and social change.
- Media, technology and culture.
- Social identities and communities.

Scholarship in these areas is aligned with finding just solutions to complex social problems locally and globally. Whereas the B.S. degree provides undergraduate students with training in social science research methods and statistics, the B.A. degree will provide an option for students desiring a more humanities-oriented framework from which to approach issues of justice. Students will develop an appreciation for studying:

- Historical events.
- Language, rhetoric and cultural context as they relate to justice.
- Philosophical systems.
- Symbolic meanings.


## Additional Program Fee: N.

## Second Language Requirement: Y .

First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: Students who complete the B.A. in justice studies will be prepared to engage in social, political, and economic issues through community service and social agency work including local and global non-governmental organizations as researchers, administrators or practitioners.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://sjsi.clas.asu.edu
WILSN 125
justiceinfo@asu.edu
480-965-7682

## Justice Studies, BS (LAJUSBS)

Campus: ONLNE, TEMPE

Program Description: Justice and social inquiry is an innovative social science program that places social justice at the center of it scholarship and teaching. The B.S. in justice studies is designed for students interested in studying the multiple meanings and
manifestations of justice and social change, both locally and globally. Students receive interdisciplinary training in research methods and theory, and take courses that provide them with a comprehensive understanding of substantive issues within five primary research areas. These five core substantive areas are:

- Citizenship, migration and human rights.
- Media, technology and culture.
- Law, policy and social change.
- Globalization, sustainability and economic justice.
- Social identities and communities.

The goal is to enable students, faculty and graduates to use their skills to find solutions to complex social problems.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College, Coconino Community College, Maricopa County Community College District.

Career Opportunities: Many graduates go on to law school, graduate school or other professional degree programs. Students emerge from this program with the knowledge and skills designed to bring social justice concerns to their professional careers. Our graduates work in a variety of fields including:

- Human welfare agencies.
- Law.
- Non-governmental organizations.
- Other public service organizations.


## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://justice.clas.asu.edu
WILSN 125
justiceinfo@asu.edu
480-965-7682

## Mathematics, BA (LAMATBA)

Campus: TEMPE
Program Description: Mathematics is a crucial component in many disciplines where the need for quantification in the analysis of phenomena is strong, such as:

- Business and economics.
- Engineering applications.
- Life sciences.
- Physics.
- Social sciences.

The B.A. in mathematics provides a general background in mathematics, at a level sufficient to improve critical thinking, rigor and problem solving skills required in certain ""social"" fields. The B.S. requires six more credit hours within the major than the B.A. The B.A. program has a foreign language requirement. A secondary education B.A. with a specialization in mathematics is also available.

Additional Program Fee: Y.
Second Language Requirement: $Y$.
First Required Math Course: MAT 243 Discrete Math Structures.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (e.g., high-school or college teacher, university professor).
- Applied math (scientific computing).
- Business (e.g., actuary for bank or insurance company, operations research).
- Engineering, biotechnology, computer, government (e.g., consultant, federal and state organizations).
- Graduate school (mathematics or other fields).
- Medicine.

Graduates with a B.A. in mathematics may pursue a master's degree in a more applied field (social sciences) or an M.B.A. and typically move on to ""social"" careers (e.g., social scientist, politics, education). Graduates also have the option of becoming certified and teaching mathematics in public middle schools and high schools. Many careers require a command of quantitative methods and persons qualified in mathematics hold a favorable edge in competition for job opportunities.

## Contact Information:

Liberal Arts and Sciences, College of
School of Mathematical and Statistical Sciences
http://math.asu.edu/
PSA 211
math@asu.edu
480-965-7195

## Mathematics, BS (LAMATBS)

Campus: TEMPE
Program Description: Mathematics is a crucial component in many disciplines where the need for quantification in the analysis of phenomena is strong, such as:

- Business and economics.
- Engineering applications.
- Life science.
- Physics.
- Social sciences.

The B.S. includes more analytical courses, as well as additional advanced courses compared to the B.A. It is the most popular math degree at ASU. Many B.S. majors are dual majors in a more applied field, such as physics and engineering.

## Additional Program Fee: Y .

Second Language Requirement: N.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (e.g., high-school or college teacher, university professor).
- Applied math (scientific computing).
- Business (e.g., actuary for bank or insurance company, operations research).
- Engineering, biotechnology, computer, government (consultant, federal and state organizations).
- Graduate school (mathematics or other fields).
- Medicine.

Many careers require a command of quantitative methods and persons qualified in mathematics hold a favorable edge in competition for job opportunities. Profiles and descriptions of jobs and career paths of actual mathematicians in a wide array of fields are published by the American Mathematical Society.

Students exploring becoming a middle or high school teacher can find more information about the concurrent degree program at http://catalog.asu.edu/concurrent_dual.

## Contact Information:

Liberal Arts and Sciences, College of
School of Mathematical and Statistical Sciences
http://math.asu.edu/
PSA 211
math@asu.edu
480-965-7195

## Mathematics (Statistics), BS (LAMATTBS)

Campus: TEMPE
Program Description: Mathematics is a crucial component in many disciplines where the need for quantification in the analysis of phenomena is strong, such as:

- Business and economics.
- Life sciences.
- Physics.
- Engineering applications.
- Social sciences.

The B.S. in mathematics with a concentration in statistics focuses on course work related to the statistical analysis of data and the evaluation of probabilistic models based on these data. Such models are heavily used in the banking and insurance industries, but also increasingly in more engineering fields where the effects of noise sometimes play a critical role in the behavior of a model. Many B.S. students in the statistics concentration are dual business or economics majors.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.
Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (e.g., high-school or college teacher, university professor).
- Applied math (scientific computing).
- Business (e.g., actuary for bank or insurance company, operations research).
- Engineering, biotechnology, computer, government (e.g., consultant, federal and state organizations).
- Graduate school (mathematics or other fields).
- Medicine.

A course of study in statistics is especially useful in technical positions in finance, insurance and business, as well as in fields where data analysis plays an important role, such as genomics. Graduates also have the option of becoming certified and teaching mathematics in public middle schools and high schools. Many careers require a command of quantitative methods and persons qualified in mathematics hold a favorable edge in competition for job opportunities.

## Contact Information:

Liberal Arts and Sciences, College of
School of Mathematical and Statistical Sciences
http://math.asu.edu/
PSA 211
math@asu.edu
480-965-7195

## Microbiology, BS (LAMICBS)

Campus: TEMPE

Program Description: The microbiology program is a focused degree that seeks to:

- Educate students in the basic background knowledge of microbiology with many courses related more specifically to medical microbiology.
- Teach students to critically think about microbiology.
- Train students in some hands-on laboratory techniques.

The curriculum has been designed to reach these goals. Students with this degree can go on to jobs in the biotechnology, pharmaceutical food and environmental sampling industries. In addition, the degree is highly compatible with the requirements for professional schools (medical, PA, dental, optometry, veterinary, or other health professional schools) and graduate schools.
Students in the B.S. in microbiology program engage in the study of microorganisms (bacteria, viruses, fungi) and their activities, including their impact on humans, animals and the environment. Several basic and applied sub disciplines are available.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Microbiology (including biotechnology and molecular biology) is a rapidly developing science with career opportunities in industrial, governmental, hospital-clinic and academic environments. Graduates work in:

- Clinical applications.
- Education.
- Production and testing of microbial products and quality control.
- Public health and environmental microbiology.
- Research and development.


## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSC 206
sols.advising@asu.edu
480-727-6277

## Molecular Biosciences/Biotechnology, BS (LAMBBBS)

Campus: TEMPE
Program Description: The B.S. degree program in molecular biosciences and biotechnology (MBB) is designed to prepare students interested in molecular and cellular biology for productive careers in rapidly expanding areas in the molecular life sciences. The MBB program provides a strong foundation for molecular-based research and education including:

- Biotechnology.
- Functional genomics research.
- Gene discovery.
- Medical research and practice.

Included, with emphasis on laboratory training, are courses in:

- Biochemistry.
- Bioinformatics.
- Chemistry.
- Genetic engineering and biotechnology.
- Genetics.
- Molecular and cell biology.

Independent research at ASU or an internship elsewhere is an integral part of the major as well, along with a capstone course experience with both science and business components. Students in the B.S. in molecular biosciences and biotechnology program focus on learning the fundamentals of:

- Biochemistry.
- Cell biology.
- Molecular genetics.
- Organismal structure and function.
- Physiology.

Additional Program Fee: Y.
Second Language Requirement: N .
First Required Math Course: MAT 251 Calculus for Life Sciences.
Career Opportunities: Graduates of the molecular biosciences and biotechnology program are prepared for admission into strong graduate and professional schools or may assume positions in education, government and technical fields, and are especially well prepared for careers in biotechnology. This program will provide a foundation for:

- Gene discovery.
- Modern medical research and practice.
- Pharmacology.
- Plant research.

Explosive growth in the biotechnology industry recently has resulted in a substantial increase in the number of employment opportunities for majors in molecular biosciences and biotechnology.

## Contact Information:

Liberal Arts and Sciences, College of
School of Life Sciences
http://sols.asu.edu/
LSE 218
sols@asu.edu
480-965-6899

## Philosophy, BA (LAPHIBA)

Campus: TEMPE
Program Description: A B.A. in philosophy offers a unique course of study. As the American Philosophical Association says, "Philosophy is quite unlike any other field...it is a reasoned pursuit of fundamental truths, a quest for understanding, a study of principles of conduct. It seeks to establish standards of evidence, to provide rational methods of resolving conflicts and to create techniques for evaluating ideas and arguments. Philosophy develops the capacity to see the world from the perspective of other individuals and other cultures; it enhances one's ability to perceive the relationships among the various fields of study; and it deepens one's sense of the meaning and varieties of human experience."

Additional Program Fee: N.
Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District, Yavapai College.

Career Opportunities: The analytical, rhetorical and writing skills developed through the study of philosophy provide ideal preparation for a wide range of careers, including:

- Business.
- Education.
- Journalism.
- Law.
- Medicine.


## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/philosophy
COOR 3307
SHPRSadvising@asu.edu
480-965-8364

## Physics, BA (LAPHYBA)

Campus: TEMPE
Program Description: Physics is concerned with the nature, structure and interactions of matter and radiation. The B.A. in physics provides a flexible and efficient option for students who are interested in a liberal arts degree with broad knowledge of physics and at least one other area. This degree program is ideal for students seeking to complete two degrees, with physics as the second degree. Students wishing to pursue a graduate degree in physics are advised to consider the B.S. in physics.

## Additional Program Fee: Y.

Second Language Requirement: Y .
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College.

Career Opportunities: Students graduating with a B.A. degree in physics may pursue such careers as:

- Health physicist.
- Lawyer.
- Medical doctor (with additional pre-medical course work).
- Patent attorney.
- Physical therapist.
- Radiation physicist.
- Research/lab assistant.
- Science policy analyst.
- Secondary science teacher.
- Technology support analyst.


## Contact Information:

Liberal Arts and Sciences, College of
Department of Physics
http://physics.asu.edu
PSF 470
physics.info@asu.edu
480-965-3561

## Physics, BS (LAPHYBS)

Campus: TEMPE
Program Description: Physics is concerned with the nature, structure and interactions of matter and radiation. The B.S. degree in physics provides students a thorough background in physics appropriate for further graduate study in physics, other sciences, or engineering programs.

Additional Program Fee: Y .
Second Language Requirement: N .
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Career Opportunities: The broad range of applicability of the principles of physics gives the physicist great flexibility in a choice of career or further education. About half of the graduates with a bachelor's degree in physics go on to graduate school in:

- Astronomy.
- Engineering.
- Medicine.
- Physics.

The other half go directly into employment in areas such as:

- Education and business.
- Engineering.
- Materials science.


## Contact Information:

Liberal Arts and Sciences, College of
Department of Physics
http://physics.asu.edu
PSF 470
physics.info@asu.edu
480-965-3561

## Political Science, BA (LAPOSBA)

Campus: ONLNE, TEMPE

Program Description: The B.A. in political science offers students the necessary skills and knowledge to participate effectively as citizens in a democratic political system and to flourish in the rapidly developing globalization of the world's political institutions, cultures and economies. The major aims to provide students with the tools and skills necessary to make connections linking theory with real world problems and issues.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Cochise College, Maricopa County Community College District, Yavapai College.

Career Opportunities: Many of our graduates have gone on to some of the country's most prestigious graduate programs and schools. Graduating seniors have also found a range of employment opportunities in:

- Communication.
- Education.
- Journalism.
- Law.
- Politics.
- Public service.

In fact, some of our graduating seniors have been hired to work at:

- The Arizona governor's office.
- The Federal Reserve.
- The judiciary.
- Local and national newspapers.
- Multinational corporations, state and local government.


## Contact Information:

Liberal Arts and Sciences, College of
School of Politics and Global Studies

## Political Science, BS (LAPOSBS)

## Campus: ONLNE, TEMPE

Program Description: The B.S. in political science offers students the necessary skills and knowledge to participate effectively as citizens in a democratic political system and to flourish in the rapidly developing globalization of the world's political institutions, cultures and economies. The major aims to provide students with the tools and skills necessary to make connections linking theory with real world problems and issues.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Many of our graduates have gone on to some of the country's most prestigious graduate programs and schools. Graduating seniors have also found a range of employment opportunities in the fields of:

- Communication.
- Education.
- Journalism.
- Law.
- Politics.
- Public service.

In fact, some of our graduating seniors have been hired to work at:

- The Arizona governor's office.
- The Federal Reserve.
- The judiciary.
- Local and national newspapers.
- Multinational corporations, state and local government.


## Contact Information:

Liberal Arts and Sciences, College of
School of Politics and Global Studies
http://www.asu.edu/clas/polisci
COOR 6797
480-965-6551

## Psychology, BA (LAPGSBA)

Campus: TEMPE
Program Description: The Department of Psychology is among the largest and most popular departments on the ASU Tempe campus. Psychology is the study of behavior, emotions and the mental processes of individuals and groups, approached through a scientific methodology. Our mission is to create an environment that prepares undergraduates to take their place in the world, more effective for what they have learned with us; graduates to conduct innovative psychological research and pursue careers that use those skills to the benefit of their community; and faculty to grow in expertise both in teaching and scholarship.
B.A. majors learn about statistics and research methods and use psychology content courses to develop skill sets in diverse settings, including the department's child development facilities or internships. Students in the B.A. program are exposed to theories and research addressing such fascinating topics as:

- How do children develop?
- How do people remember information over long periods of time?
- How do the mind and body react to stress?
- How can people use social influence to increase compliance?
- Which types of treatments are most effective for individuals who are depressed?


## Additional Program Fee: Y.

Second Language Requirement: $Y$.
First Required Math Course: MAT 170 Precalculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Maricopa County Community College District, Pima Community College, Yavapai College.

Career Opportunities: The B.A. in psychology is designed to prepare students to work in a variety of settings that provide opportunities to apply concepts and principles of psychology. This degree provides students the opportunity to develop a broad range of highly marketable skills, including analytical skills, writing and public speaking skills, and teamwork and leadership skills, as well as valuable computer skills. These skills lead to many career opportunities or graduate degrees in such fields as counseling, social work and family therapy. A B.A. in psychology also leads to professional postgraduate programs in the fields of law and medicine.

## Contact Information:

Liberal Arts and Sciences, College of
Department of Psychology
http://psychology.clas.asu.edu/undergrad/advising
PSY 255
psych.advisor@asu.edu
480-965-7258

## Psychology, BS (LAPGSBS)

Campus: TEMPE
Program Description: The Department of Psychology is among the largest and most popular departments on the ASU Tempe campus. Psychology is the study of behavior, emotions and the mental processes of individuals and groups, approached through a scientific methodology Our mission is to create an environment that prepares undergraduates to take their place in the world, more effective for what they have learned with us; graduates to conduct innovative psychological research and pursue careers that use those skills to the benefit of their community; and faculty to grow in expertise both in teaching and scholarship.
B.S. majors take advanced course work in statistics, and receive hands-on research experience by working with faculty members in the laboratory. Students in the B.S. program are exposed to theories and research addressing such fascinating topics as:

- How do children develop?
- How do people remember information over long periods of time?
- How do the mind and body react to stress?
- How can people use social influence to increase compliance?
- Which types of treatments are most effective for individuals who are depressed?


## Additional Program Fee: Y.

Second Language Requirement: $N$.
MAT 251: Calculus for Life Sciences OR MAT 270: Calculus with Analytic Geometry I

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District, Pima Community College, Yavapai College.

Career Opportunities: The B.S. in psychology emphasizes critical thinking and analytic and quantitative skills involved in psychological research to prepare students for graduate study in psychology (to be a researcher, teacher, or clinician).

## Contact Information:

Liberal Arts and Sciences, College of
Department of Psychology
http://psychology.clas.asu.edu/undergrad/advising
PSY 255

## Religious Studies, BA (LARELBA)

Campus: TEMPE
Program Description: Students in the B.A. in religious studies program engage in the comparative, cross-cultural study of religions and cultures. Employing various disciplinary approaches, including the historical, sociological, anthropological and theological, the academic study of religion seeks to interpret, analyze and evaluate the nature and role of religion in the lives of individuals and societies.
The faculty of religious studies enjoy an excellent national reputation and the degree is distinctive at ASU because the relatively small number of majors allows undergraduates to receive individual faculty attention, which is often not possible in larger departments.

## Additional Program Fee: N.

## Second Language Requirement: Y .

First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: A degree in religious studies provides a strong liberal arts background and excellent training in critical thinking and writing. Such a liberal education, which includes the development of basic intellectual skills, has become increasingly attractive to employers seeking to hire recent college graduates. Students with a degree in religious studies are also well positioned to pursue graduate studies in the liberal arts and professional programs, including:

- Business.
- Journalism.
- Law.
- Social work.


## Contact Information:

Liberal Arts and Sciences, College of
Historical, Philosophical \& Religious Studies, Sch
http://shprs.clas.asu.edu/religious_studies
COOR 3307
SHPRSadvising@asu.edu
480-965-7145

## Russian, BA (LARUSBA)

## Campus: TEMPE

Program Description: Students in the B.A. in Russian program study the language, literature and culture of Russia. They gain a respectable measure of reading, writing and oral/aural skills in the Russian language, engaging in:

- Art and architecture.
- Government and politics.
- History and sociology.
- International business.
- Linguistics.
- Literary and cultural theory.
- Literature.
- Music and dance.
- Religion.

The Russian language program also cooperates with other related units within the university (e.g., the Melikian Center for Russian, Eurasian and East European Studies) to offer a Russian and East European Studies Certificate (REESC).

Students may also take summer intensive courses in Macedonian, Albanian, Armenian, Serbo-Croatian, Tatar, Polish and a number of other Central Asian languages through the Critical Language Institute at ASU.
A study abroad program is offered in Macedonia, and advanced Russian language students may study in Moscow and St. Petersburg during the summer.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates have a variety of career opportunities. At present these graduates have an enviable record of postgraduate placement in the job market. Many work for firms that deal with international trade or for U.S. companies that have branches in Russia, while many find positions within government service or in teaching. A few pursue graduate work in Russian studies, eventually teaching the language and/or culture in universities or colleges.

## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Sociology, BS (LASOCBS)

Campus: ONLNE, TEMPE
Program Description: Sociology is the study of social life, social change and the social causes and consequences of human behavior. The B.S. in sociology trains students in written communication, computer skills, statistics and research methods, and offers a wide variety of substantive courses on contemporary social issues ranging from crime to population trends, and courses on social institutions, such as the family, education and religion.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Cochise College, Maricopa County Community College District, Yavapai College.

Career Opportunities: An undergraduate degree in sociology not only provides excellent preparation for future graduate work in sociological research, social work, law, medicine and counseling, it also prepares undergraduates for direct entry into positions in business, social service and government.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social and Family Dynamics
http://ssfd.clas.asu.edu/
SS 144
email@ssfd.info
480-965-6978

## Spanish, BA (LASPABA)

Campus: TEMPE
Program Description: Students in the B.A. in Spanish program have the opportunity to gain oral, reading, speaking and written proficiency in the language. The program offers two study tracks from which to choose, 1) literature and culture, or 2) Spanish linguistics.

The literature and culture track provides an in-depth understanding of the themes of Spanish and Latin American culture and literature and the contemporary issues throughout the Spanish-speaking world.
The Spanish linguistics track provides an in-depth understanding of the Spanish language (syntax, morphology) and may include courses in translation (English/Spanish).
Students are encouraged to contact a school advisor to discuss the two available tracks. ASU offers opportunities throughout the year to study in Spain, Mexico and other Spanish-speaking countries through study abroad and exchange programs. Students majoring in Spanish may also work toward a professional certificate in Spanish/English translation.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates may choose from several career options:

- Become certified to teach high school.
- College or university teaching and research in linguistics or literature through advanced degrees.
- Translation or interpretation studies.

Graduates may combine Spanish with other fields with an international emphasis, such as:

- Business.
- Engineering.
- Journalism.
- Political science.


## Contact Information:

Liberal Arts and Sciences, College of
School of International Letters and Cultures
http://silc.asu.edu/undergraduate/majors-minors-certs
LL 440
silcadvising@asu.edu
480-965-6281

## Speech \& Hearing Science, BS (LASHSBS)

Campus: TEMPE
Program Description: Students in the B.S. in speech and hearing science program study the normal aspects of the communication process. Emphasis is placed on:

- Anatomy and physiology of the hearing mechanism.
- The human communication system, including normal development of speech and language.
- Speech, language and hearing science.

Graduates attain broad-based knowledge in the basic aspects of speech, language and hearing sciences, which prepares them for graduate studies in audiology or speech language pathology.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 170 Precalculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Employment opportunities for those with a B.S. may include positions as:

- Management trainees.
- Research assistants/associates in behavioral disciplines.
- Speech-language pathology assistants.

Primarily, a degree in this field prepares the student for entrance into a graduate program in speech-language pathology (SLP) or audiology. In both fields, a graduate degree is required for employment.
The undergraduate degree in speech and hearing science is also excellent preparation for those who wish to enter other professional graduate programs such as:

- Education.
- Law.
- Medicine.
- Rehabilitation.
- Special education.
- Teaching for the deaf.

Graduates in SLP and audiology can work in a variety of settings:

- Clinics.
- Hospitals.
- Schools.


## Contact Information:

Liberal Arts and Sciences, College of
Department of Speech and Hearing Science
http://shs.asu.edu/
COOR 2215
shsinfo@asu.edu
480-965-4520

## Transborder Chicana/o \& Latina/o Studies (Media and Expressive Culture), BA (LATCLMBA) <br> Campus: TEMPE

Program Description: Students choosing this concentration study the expressive cultures of Latina/o communities. Its objective is to equip students with critical skills to understand how expressive culture produces and reproduces historical and cultural narratives about Latina/o communities in general and Mexican and Chicana/o communities specifically. Students engage in the study of these narratives in transdisciplinary, humanities-based contexts, including:

- History
- Literature.
- Media.
- Performance.
- Visual art.

The concentration exposes students to the contributions that transborder communities have made to the arts and humanities. Student outcomes include 1) becoming critical consumers of media and expressive culture, and 2) becoming conversant in the meaning-making processes and practices that shape and impact Latina/o populations.

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The bachelor's program in transborder Chicana/o and Latina/o studies prepares ASU graduates for career opportunities in a variety of national and international fields, including:

- Business fields.
- Communication.
- Education.
- Health services.
- Justice studies.
- Public policy and administration.

Transborder Chicana/o and Latina/o majors will also be well prepared to enter graduate study in such high need career fields as:

- Business.
- Education.
- Law.
- Medicine.
- Public health.
- Social work.


## Contact Information:

Liberal Arts and Sciences, College of
School of Transborder Studies
http://transborder.clas.asu.edu
COOR 6635
tcls.info@asu.edu
480-965-5091

## Transborder Chicana/o \& Latina/o Studies (Transborder Community Development and Health), BA (LATCLTBA)

Campus: TEMPE
Program Description: The B.A. in transborder Chicana/o and Latina/o studies is an interdisciplinary degree program whose central mission is to provide a value-added environment that increases the direct participation of Chicana/o and Latina/o populations in the formation of human and capital development.
By developing a program of social science research and teaching with an emphasis on community development and health, students will concentrate on patterns of physical, mental and social health disparities closely associated with:

- Differential health care.
- Learning how to develop appropriate mitigating applied programs.
- Limited access to insurance.
- Poverty.
- Reliance on emergency measures and facilities.

Other major orientations with an applied focus will include:

- Environmental home health.
- Vulnerable populations.

Additional Program Fee: $N$.
Second Language Requirement: $Y$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The bachelor's program in transborder Chicana/o and Latina/o studies prepares ASU graduates for career opportunities in a variety of national and international fields, including:

- Business fields.
- Communication.
- Education.
- Health services.
- Justice studies.
- Public policy and administration.

Transborder Chicana/o and Latina/o majors will also be well prepared to enter graduate study in such high need career fields as:

- Business.
- Education.
- Law.
- Medicine.
- Public health.
- Social work.


## Contact Information:

Liberal Arts and Sciences, College of
School of Transborder Studies
http://transborder.clas.asu.edu
COOR 6635
tcls.info@asu.edu
480-965-5091

## Transborder Chicana/o \& Latina/o Studies (US and Mexican Regional Immigration Policy \& Economy), BA (LATCLUBA)

## Campus: TEMPE

Program Description: The B.A. in transborder Chicana/o and Latina/o studies is an interdisciplinary degree program whose central mission is to provide a value-added environment that increases the direct participation of Chicana/o and Latina/o populations in the formation of human and capital development. This concentration has a strong applied orientation and focuses on the regional and transnational policies and practices that have led to enormous demographic changes in the borderlands of the immediate U.S.Mexico border region, and the entire country (with a total of 20.6 million people of Mexican origin, born in or migrated to the U.S.). Our focus is concerned with the manner in which economic and political decisions between Mexico and the United States, as well as other transnational policies concerning other countries, strongly influence:

- Demographic transitions.
- Ecological conditions.
- Economic policy towards trade.
- The nexus of relations that are established across borders at local, regional and transborder levels.
- The present state of human migration.

Additional Program Fee: $N$.
Second Language Requirement: $Y$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The bachelor's program in transborder Chicana/o and Latina/o studies prepares ASU graduates for career opportunities in a variety of national and international fields, including:

- Business fields.
- Communication.
- Education.
- Health services.
- Justice studies.
- Public policy and administration.

Transborder Chicana/o and Latina/o majors will also be well prepared to enter graduate study in such high need career fields as:

- Business.
- Education.
- Law.
- Medicine.
- Public health.
- Social work.


## Contact Information:

Liberal Arts and Sciences, College of
School of Transborder Studies
http://transborder.clas.asu.edu
COOR 6635
tcls.info@asu.edu
480-965-5091

## Urban Planning, BSP (ARPUPBSP)

Campus: TEMPE

Program Description: Urban planners guide communities in making wise decisions about their use of land and resources. The B.S.P. in urban planning program offers students expertise in both the analysis and the synthesis of the physical, social, political and economic issues that shape urban and regional development. Students take courses that include:

- Comprehensive planning, socioeconomic and environmental analysis.
- Computer and analytical methods.
- Planning law.
- Public-policy formulation and administration.
- Site planning.
- Urban design.

Planning includes:

- Computer and research methods.
- Environmental impact assessment.
- Geographic information systems.
- Housing.
- Landscape architecture and urban design.
- Planning and zoning law.
- Public policy formulation and administration.
- Transportation.
- Urban and development economics.
- Utilities.


## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Graduates in planning pursue career opportunities with private planning firms and governmental planning agencies. Some planners elect to pursue graduate degrees to develop specialty skills and to enhance their opportunities for career advancement.

## Contact Information:

Liberal Arts and Sciences, College of
School of Geographical Sciences and Urban Planning
http://geoplan.asu.edu/
COOR 5673
geoplan@asu.edu
480-965-7533

## Women and Gender Studies, BA (LAWSTBA)

## Campus: TEMPE

Program Description: The B.A. in women and gender studies offers a comprehensive program of study that empowers students to make a difference in the world. Students learn to challenge conventional wisdom about gender and learn new ways of viewing the world through the study of:

- Culture.
- Economics.
- Film.
- History.
- Literature.
- Politics.
- Science.

Internship and leadership opportunities allow students to pursue career goals in:

- Business.
- Government.
- Nonprofit organizations.

Additional Program Fee: N.
Second Language Requirement: Y.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The interdisciplinary women and gender studies program prepares students for many different career opportunities upon graduation. Graduates have:

- Become consultants and counselors.
- Become lawyers.
- Become teachers.
- Created businesses.
- Secured careers in public relations.
- Worked in nonprofit organizations and agencies serving women and girls.
- Worked in policy and government.

Our graduates are also well prepared for graduate and law school and have been admitted to prestigious programs.

## Contact Information:

Liberal Arts and Sciences, College of
School of Social Transformation
http://wgs.asu.edu
WHALL 205
wgs.asutempe@asu.edu
480-965-2358

## New College of Interdisciplinary Arts and Sciences

## American Studies, BA (ASAMSBA)

## Campus: WEST

Program Description: The B.A. in American studies, within the New College of Interdisciplinary Arts and Sciences, enables students to look at the experiences of North Americans and their environment from a variety of historical and contemporary perspectives. Courses are grouped into four emphases:

- American cultures: concentrating on systems of belief and their symbolic expression in literature, art, philosophy, and regional and popular cultures.
- American lives: exploring the ways in which categories of race, ethnicity, class and gender intersect with individual and community experience.
- American systems: dealing with political, economic, religious and legal institutions.
- Writing: stressing critical writing skills and training students to pursue careers in which writing is a major activity.

Students learn to think and write critically, to conduct research and to appreciate the changing and diverse nature of American life. Students determine appropriate programs of study in consultation with department academic advisors.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates are well equipped to embark on a wide variety of careers in government, education, business, museum and foundation work; journalism and other forms of professional writing; and in other areas where these capabilities are highly valued and sought. The program also serves as excellent preparation for law school and for graduate programs in fields such as American studies, English, journalism, history and art history. Ideally suited to careers in which research, analysis and planning play a central role.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/americanstudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Applied Computing, BS (ASACOBS)

## Campus: WEST

Program Description: The B.S. in applied computing, within the New College of Interdisciplinary Arts and Sciences, prepares students to collect and analyze data; to allow for efficient, effective and ethical user interaction with computer systems; to apply skills to lead the development of technology systems; to engage in creative efforts; and to develop and assure quality and value of information. The program has both a technical component, concerned with the design and use of appropriate systems and technologies, and a social sciences component, concerned with understanding how people seek, obtain, evaluate, use and categorize information. Students receive a solid foundation in mathematics, technology and social sciences. Students can also choose one of three concentrations within the major:

- Database systems.
- Digital media and graphic design.
- Networking and distributed processing.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students are prepared to integrate technology with human activities, to respond to global changes, to solve problems and to create and manage the technological production of information and creative products. Core information technology industries are among the fastest growing sectors in the U.S. economy. Graduates will find employment opportunities with corporations and businesses, nonprofit and government agencies, digital arts media industries and in the academic world.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://newcollege.asu.edu/programs/app_comp/
CLCC 217
MNS.Dept@asu.edu
602-543-6050

## Applied Mathematics, BS (ASMATBS)

Campus: WEST

Program Description: The B.S. in applied mathematics offers an interdisciplinary degree providing students with a broad and rigorous foundation in applied mathematics. The program emphasizes an education in quantitative problem solving and critical thinking through a survey of courses exposing students to a wide variety of mathematical theories, techniques and applications that are currently used by analysts and researchers in government, industry and nonprofit organizations. Students will also complete a capstone project involving real-world problems under the supervision of an advisor and in close consultation with an external project sponsor.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Students graduating with a B.S. in applied mathematics have a wide range of career options in industry, finance, government, nonprofit organizations and education, as well as advanced degrees in the mathematical sciences (e.g., mathematics, statistics, and computer science). Based on students' career interests, they may enroll in degree tracks to help guide the students' choice of courses, such as:

- Applied mathematical networks.
- Financial mathematics.
- General applied mathematics.
- Mathematical biology.
- Operations research.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://newcollege.asu.edu/
CLC C217

## Applied Science, BAS (ASBASBAS)

## Campus: WEST

Program Description: The B.A.S. program, within the New College of Interdisciplinary Arts and Sciences, combines the technical concentration knowledge earned in the student's Associate of Applied Science with a broader education gained at the bachelor's level of education. Included in the program of study is an area of concentration (using an approved ASU minor or creating a concentration that is completely individualized) unique to their own interests and career pursuits. For example, the area of concentration can include, but is not limited to:

- Business.
- Communication.
- Criminal justice and pre-professional studies.
- Education and teaching.
- Environmental issues and physical sciences.
- Languages and cultures.
- Social sciences and policy issues.

The program is capped with an internship experience.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree. Not available for freshmen.

Career Opportunities: Emphasizing professional study combined with a specific area of concentration (e.g., business, communication studies, English, gerontology, history, psychology or pre-professional studies), students tailor their programs to meet individualized career goals. The capstone internship program prepares students to make the transition smoothly to post-
baccalaureate employment in business, cultural, educational, community and human service settings, as well as to graduate school. Students planning graduate or professional degrees in law, business, social sciences, helping professions or in traditional disciplines benefit from the flexibility of this program for a broad range of future academic and career pursuits.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/app_science
FAB N201
harcs.dept@asu.edu
602-543-4444

## Communication, BA (ASCOMMBA)

## Campus: WEST

Program Description: Communication is an extensive field involving the exploration of messages and their various meanings. Such exploration occurs in countless ways, including the study of messages between individuals in relationships, between employees in organizations, between media and their respective audiences, between social institutions and their constituents, and between members of different cultures. The B.A. prepares students to work in communications-intensive careers, such as public relations, corporate communications, customer relations, new media, health communications, crisis management, training, human resources
management and media relations. It readies graduates to perform various forms of data analysis, communication assessment and technical reporting. It also prepares students for graduate study in the social sciences, law, humanities and management.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College, Maricopa County Community College District.

Career Opportunities: Communication is a broadly based discipline that trains individuals to speak and write competently, to manage relationships well, to effectively problem solve, and to understand the role and function of communication in public forums, organizational settings, relational exchanges and intercultural situations. Because these skills are crucial to many professions, communication graduates work in a variety of fields including:

- Advertising.
- Customer service and customer relations.
- Education.
- Fundraising.
- Health and human services.
- Human resources.
- International service.
- Legal professions.
- Lobbying.
- Management.
- Media and public relations.
- Mediation.
- Ministry.
- Personnel.
- Public administration.
- Public advocacy.
- Public office.
- Public relations.
- Research.
- Sales and marketing.
- Speech writing.
- Training and development.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/communication
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Communication, BS (ASCOMMBS)

Campus: WEST
Program Description: Communication is an extensive field involving the exploration of messages and their various meanings. Such exploration occurs in countless ways, including the study of messages between individuals in relationships, between employees in organizations, between media and their respective audiences, between social institutions and their constituents, and between members of different cultures. The B.S. prepares students to work in communications-intensive careers, such as public relations,
corporate communications, customer relations, new media, health communications, crisis management, training, human resources management and media relations. It readies graduates to perform various forms of data analysis, communication assessment and technical reporting. It also prepares students for graduate study in the social sciences, law, humanities and management.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Communication is a broadly based discipline that trains individuals to speak and write competently, to manage relationships well, to effectively problem solve, and to understand the role and function of communication in public forums, organizational settings, relational exchanges and intercultural situations. Because these skills are crucial to many professions, communication graduates work in a variety of fields including:

- Advertising.
- Customer service and customer relations.
- Education.
- Fundraising.
- Health and human services.
- Human resources.
- International service.
- Legal professions.
- Lobbying.
- Management.
- Media and public relations.
- Mediation.
- Ministry.
- Personnel.
- Public administration.
- Public advocacy.
- Public office.
- Public relations.
- Research.
- Sales and marketing.
- Speech writing.
- Training and development.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/communication
FAB S105
SBS.Dept@asu.edu
602-543-6058

## English, BA (ASENGBA)

Campus: WEST

Program Description: The primary mission of the program is undergraduate education. Graduates should be able to write clearly and effectively, to think critically and to construct well-supported rational arguments. They should gain an awareness of genre, should be able to take a critical approach to texts, and should learn to shape their discourse to suit their intended audience.

The program, in its thematic cluster design, provides students with a balanced overview of major literature in the English language - major authors, regional and ethnic literatures and writing by women - and an awareness of the role of literary discourse in broader social and historical contexts.
The program stresses both the formal aesthetic qualities of texts and the issues of class, gender, race and ethnicity relating to literary representation. It provides students a familiarity with standard literary critical terminology and an awareness of a variety of theoretical approaches to literary study. It relates works of literature to historical events, cultural patterns, philosophical and theological concepts, and technological innovations.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College, Eastern Arizona College, Maricopa County Community College District.

Career Opportunities: The program prepares students for graduate and professional training, including law, business, teaching and public policy. With breadth and emphasis on the communication of ideas, it serves as an excellent point of departure for careers in marketing, public relations, government, diplomacy and community work.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/english
FAB N201
harcs.dept@asu.edu
602-543-4444

## Ethnicity, Race, First Nations Studies, BA (ASETHBA)

Campus: WEST
Program Description: Ethnicity, Race, First Nations Studies is the first such B.A. program in Arizona. It provides an integrated, comparative and comprehensive approach to the study of diversity among ethnic and racial groups and First Nations. A highlight of the program is the internship, which fosters direct links between the university and community-based settings. Both theoretical and applied perspectives are embedded in a curriculum addressing how ethnicity, race and First Nations shape identities, literacies, public policies and communities in local and transnational U.S. contexts. Students identify a career area enabling them to integrate their knowledge with specific course work tied to their career and advanced educational goals.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Rapid socioeconomic change, changing demographics, increased global competition and rapid cultural diversification have created an increasing need for workers and citizens knowledgeable about diverse ethnic and racial groups. Graduates of the undergraduate Ethnicity, Race, First Nations Studies program will be positioned to enter the workforce and function effectively and critically as informed citizens in a diverse and complex society.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of

Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/erfns
FAB N201
harcs.dept@asu.edu
602-543-4444

## History, BA (ASHISBA)

Campus: WEST

Program Description: The B.A. in history, within the New College of Interdisciplinary Arts and Sciences, trains students in the use of basic tools and methods of the historical discipline. Students are exposed to a broad span of modern history, a wide range of historiographical perspectives and approaches, and such fundamental categories of historical analysis as race, class, gender and ethnicity. Students develop habits of mind associated with history as a discipline. The program consists of several specific core courses and a range of electives and distributional requirements, providing students with a solid foundation in historical methods.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The B.A. in history serves as excellent preparation for study in graduate or professional degree programs and for careers in which critical thinking, research and writing skills are highly valued. This program provides a strong foundation for understanding the forces of change that shape contemporary society, the marketplace, and the lives of individuals and groups, thereby equipping students to negotiate the complex cultural, community and business environments of the 21st century.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/history
FAB N201
harcs.dept@asu.edu
602-543-4444

## Integrative Studies, BA (ASIASBA)

Campus: WEST

Program Description: The B.A. in integrative studies, within the New College of Interdisciplinary Arts and Sciences, prepares students for broad employment alternatives or to pursue graduate studies. As a variation of the classic liberal arts degree, students combine a solid foundation of lower-division courses, followed by upper-division liberal arts courses where students design an area of concentration (using an approved ASU minor or creating a concentration that is completely individualized) unique to their own interests and career pursuits. For example, the concentration can include, but is not limited to:

- Business.
- Communication.
- Criminal justice and pre-professional studies.
- Education and teaching.
- Environmental issues and physical sciences.
- Languages and cultures.
- Social sciences and policy issues.

Flexible and diverse, the program is capped with an internship experience.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Emphasizing interdisciplinary study combined with a specific area of concentration (e.g., business, communication studies, English, gerontology, history, psychology or pre-professional studies), students tailor their programs to meet individualized career goals. The capstone internship program prepares students to make the transition smoothly to postbaccalaureate employment in business, cultural, educational, community, social sciences and human service settings, as well as to graduate school. Students planning graduate or professional degrees in law, business, helping professions, or in traditional disciplines benefit from the flexibility of this program for a broad range of future academic and career pursuits.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/integrativestudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Interdisciplinary Arts \& Performance, BA (ASIAPBA)

## Campus: WEST

Program Description: The interdisciplinary arts and performance program (IAP), the only one of its kind in the Southwest, offers a Bachelor of Arts for students focused on an interdisciplinary and collaborative approach to the arts, technology and performance. Core and elective courses are offered in digital media arts, sound/recording arts, theatre/performance practice, visual art and more. The IAP program includes courses on the traditions of 20th- and 21st-century interdisciplinary, avant-garde and experimental arts, and aims toward providing students with an understanding of the genres and directions in contemporary art-making and performance. Teaching and course work in IAP encourages students to develop creatively and to work collaboratively. A senior project allows students to finalize their degree with a substantial artistic venture or to engage in a practical arts-based internship. Graduates enter the art-making world or work in the areas of media, film and education.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: This interdisciplinary arts training can be the basis for a variety of personal and professional pursuits. Students who major in the program receive practical, professional training and solid academic skills. They gain extensive preparation for careers as artists, performers and creative professionals. They also develop critical backgrounds useful for becoming future teachers and scholars. Graduates of the program are prepared for advanced study in the performing arts or arts-related professions in education, art and cultural journalism, government and community arts administration, media services and production.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/iap
FAB N201
harcs.dept@asu.edu

## Life Sciences, BA (ASLSCBA)

Campus: WEST
Program Description: The intricate connections among biology, chemistry and physics form the basis of the life sciences curriculum. The B.A. program emphasizes interdisciplinary learning of the life and physical sciences, emphasizing the connectedness among disciplines. The organization and flexibility of the B.A. encourages students to deeply study another subject outside their major, by encouraging students to double major or minor in another subject area.

## Additional Program Fee: N.

Second Language Requirement: N.

Career Opportunities: Students have a wide variety of career options including: health professional programs, graduate school, laboratory research, science writing, environmental management and conservation, science advisors to businesses and government, and primary and secondary school teaching.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of Division of Mathematical and Natural Sciences
http://newcollege.asu.edu/programs/lifesci/
CLCC 217
Pamela.Marshall@asu.edu
602-543-6143

## Life Sciences, BS (ASLSCBS)

Campus: WEST
Program Description: The intricate connections among biology, chemistry and physics form the basis of the life sciences curriculum. The B.S. program emphasizes experiential learning, and all required core courses have laboratories. By learning in an integrative environment that emphasizes the connectedness of disciplines, students gain a better understanding of larger scientific concepts and can view these concepts from multiple perspectives. Undergraduates have the opportunity to conduct independent research under the mentorship of faculty members or in internships outside of the department.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The B.S. in life sciences prepares students for a wide range of careers by offering course and laboratory work and quantitative research opportunities that develop fundamental problem-solving, critical thinking, writing and communication skills. Graduates may enter careers in laboratory or field research, business, scientific journalism, publishing, teaching and medicine. Other opportunities include working as a laboratory technician or research associate in university and government research laboratories, and hospital and diagnostic laboratories, or working in pharmaceutical, biotechnology, agricultural and food processing companies. Undergraduate laboratory experience, both on- and off-campus, enhances employability in these areas. Students engaged in field studies are prepared for entry-level positions in private companies and state and federal agencies (e.g., wildlife biologist, environmental consultant or conservation officer).

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences

## CLCC 217

MNS.Dept@asu.edu
602-543-6050

## Life Sciences (Environmental Science), BS (ASLSCEBS)

## Campus: WEST

Program Description: The intricate connections among biology, chemistry and physics form the basis of the life sciences curriculum. The B.S. program emphasizes experiential learning, and all required core courses have laboratories. By learning in an integrative environment that emphasizes the connectedness of disciplines, students gain a better understanding of larger scientific concepts and can view these concepts from multiple perspectives. Undergraduates have the opportunity to conduct independent research under the mentorship of faculty members or in internships outside of the department.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Career Opportunities: According to the 2010-2011 Occupational Outlook Handbook (US Bureau of Labor Statistics, 2010), employment of Environmental Scientists is expected to grow by 28 percent between 2008 and 2018. This is far more rapid growth than average rate of growth for all occupations. The Handbook indicates that most rapid growth will occur in the private sector (primarily, in private environmental consulting firms).
This concentration will allow students to tailor their courses of study to interests they possess in the science of the environment to help prepare them for careers in both the public and private sectors (e.g. in environmental consulting, environmental remediation, natural resource management, etc.) as well as entry into graduate programs in environmental science and related disciplines.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://newcollege.asu.edu/mns/
CLCC 217
mns@asu.edu
602-543-6050

## Life Sciences (Forensics), BS (ASLSCFBS) <br> Campus: WEST

Program Description: This concentration will allow students interested in the life sciences to focus their courses of study on the field of forensics. Students pursuing this concentration will take a different, more forensics-relevant set of distribution courses than those students pursuing the current B.S. in life sciences. The concentration will prepare students interested in criminal forensics for careers in forensic science and success in graduate and professional degree programs. Much of the required course work will be completed in chemistry and/or biology lab science courses to ensure that graduates of the program are competitive as they enter the workforce, pursue relevant careers (e.g., those in crime labs), and apply to graduate and professional degree programs.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Career Opportunities: Graduates of this program will be able to pursue careers not only in forensics laboratories, but also in the research and development of new technologies in forensics. Graduates of this program will be particularly competitive for positions in forensics laboratories because the concentration focuses heavily on chemistry and biology laboratory course work (areas that administrators and current employees in crime labs have reported are critically important). For example, as reliance upon DNA fingerprinting technologies increases, demand for forensic scientists trained in the requisite amounts of molecular biology will increase. The concentration also places focus on oral communication skills (e.g., through course work in argumentation, COM 222 or 422), which will prepare graduates for the multifaceted aspects of their careers in forensics (e.g., providing articulate and compelling expert testimony in criminal trials). Graduates of this program will also be well-positioned to enter graduate programs in forensics.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://newcollege.asu.edu/mns/
CLCC 217
mns@asu.edu
602-543-6050

## Political Science, BA (ASPOLBA)

Campus: WEST

Program Description: Students gain understanding of theory, practice and policy underlying political processes, locally, nationally and internationally, in the B.A. in political science program. The degree trains students in research skills necessary for analysis of complex sociopolitical issues locally and globally. Course work is learner-centered in political theory, American political institutions, international relations and world affairs. This is a flexible program focusing on international, urban, and race/ethnic sociopolitical areas, internships, and service-learning/action research opportunities with emphasis on intellectual and concrete policy issues in the greater Phoenix metropolitan area, Arizona, the Arizona-Mexico borderlands, the Americas and the world.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The political science curriculum provides a solid background for employment in a relevant profession and prepares students for graduate work in political science, social science disciplines, urban planning or in professional schools. The program serves as a good precursor to staff, manager or policy analyst positions in local, state and federal government. This degree is recognized as qualification for many careers in business (for-profit and nonprofit) and industry. Work may include binational, cross-border positions linking U.S. and Mexican businesses, Arizona-Sonora local government or local community groups on both sides of the border. Many students use the degree as a gateway to law school or basis for further study in such applied fields as urban affairs/urban and regional planning, public administration, public policy or community development.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/politicalscience
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Political Science, BS (ASPOLBS)

Campus: WEST

Program Description: Students gain understanding of theory, practice and policy underlying political processes, locally, nationally and internationally, in the B.S. in political science program. The degree trains students in research skills necessary for analysis of complex sociopolitical issues locally and globally. Course work is learner-centered in political theory, American political institutions, international relations and world affairs. This is a flexible program focusing on international, urban, race/ethnic sociopolitical areas, internships and service-learning/action research opportunities with emphasis on intellectual and concrete policy issues in the greater Phoenix metropolitan area, Arizona, the Arizona-Mexico borderlands, the Americas and the world. The B.S. requires six more credit hours than the B.A.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The political science curriculum provides a solid background for employment in a relevant profession and prepares students for graduate work in political science, social science disciplines, urban planning or in professional schools. The program serves as a good precursor to staff, manager or policy analyst positions in local, state and federal government. This degree is recognized as qualification for many careers in business (for-profit and nonprofit) and industry. Work may include binational, cross-border positions linking U.S. and Mexican businesses, Arizona-Sonora local government or local community groups on both sides of the border. Many students use the degree as a gateway to law school or basis for further study in such applied fields as urban affairs, urban and regional planning, public administration, public policy or community development.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/politicalscience
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Psychology, BA (ASPGSBA)

Campus: ONLNE, WEST
Program Description: Psychology is the scientific study of the behavior and mental processes of individuals and groups. The diverse B.A. curriculum in psychology, within the New College of Interdisciplinary Arts and Sciences, consists of basic and applied courses covering multiple perspectives within the field, including clinical, cognitive systems/behavioral neuroscience, cross-cultural, developmental, organizational and social psychology. Courses are presented in the context of cultural, socio-historical and transnational issues, enabling the student to understand the relationship between psychology and other social and behavioral sciences. This program adds practical experiences to enrich study through service learning, internships and research with faculty members. Strong emphasis is placed on developing skills in critical thinking and reasoning, quantitative and qualitative research methods, and writing to round out preparation for a career or for graduate studies.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 117 College Algebra.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College, Cochise College, Coconino Community College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: A degree in psychology will prepare students for a career in mental health professions (e.g., youth counselor, substance abuse counselor), social services (e.g., high school psychology teacher, occupational analyst) and government (e.g., sales and marketing, human resources management). The degree also provides an excellent foundation for graduate study in fields such as public administration, law, family studies, communication and the various graduate programs in psychology:

- Clinical and counseling.
- Cognitive neuroscience.
- Developmental.
- Environmental.
- Experimental.
- Physiological.
- Social.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/psychology
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Psychology, BS (ASPGSBS)

Campus: WEST
Program Description: Psychology is the scientific study of the behavior and mental processes of individuals and groups. The B.S. in psychology, within the New College of Interdisciplinary Arts and Sciences, consists of basic and applied courses covering multiple perspectives within the field, including clinical, cognitive systems/behavioral neuroscience, cross-cultural, developmental, organizational and social psychology. Courses are presented in the context of cultural, socio-historical and transnational issues, enabling the student to understand the relationship between psychology and other social and behavioral sciences.
This program adds practical experiences to enrich study through service learning, internships and research with faculty members. Strong emphasis is placed on developing skills in critical thinking and reasoning, quantitative and qualitative research methods, and writing to round out preparation for a career or graduate studies. The B.S. program is distinguished from the B.A. in that it requires two additional lab sciences (a life science and a physical science) and MAT 210 Brief Calculus.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 117 College Algebra.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College, Cochise College, Maricopa County Community College District, Mohave Community College, Pima Community College.

Career Opportunities: A B.S. in psychology will prepare students for a career in mental health professions (e.g., youth counselor, substance abuse counselor), social services (e.g., high school psychology teacher, occupational analyst) and government (e.g., sales and marketing, human resources management). The degree also provides an excellent foundation for graduate study in fields such as public administration, law, family studies, communication and the various graduate programs in psychology:

- Clinical and counseling.
- Cognitive neuroscience.
- Developmental.
- Environmental.
- Experimental.
- Physiological.
- Social.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/psychology
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Religion \& Applied Ethics Studies, BA (ASRELBA)

Campus: WEST
Program Description: Many people make ethical decisions in the context of their religious beliefs or world views. By combining the disciplines of religion and applied ethics studies, students are able to analyze problems more realistically. Students in the B.A. in religion and applied ethics studies program, within the New College of Interdisciplinary Arts and Sciences, learn the applicable religious contexts for understanding why people choose to live or respond to ethical issues as they do. They learn to identify moral problems developing in society, to develop the tools needed to formulate and critically evaluate various responses, and to make careful and informed decisions about ethical matters in contemporary life. The religion and applied ethics studies program is capped with a thesis and internship experience.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: $N$.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates can anticipate opportunities in the following fields, explored through their required internships:

- Business.
- Criminal justice.
- Education.
- Government.
- Human resources.
- Law.
- Law enforcement.
- Media.
- Medicine.
- Religious organizations.
- Social services.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/religion
FAB N201
harcs.dept@asu.edu
602-543-4444

## Social and Behavioral Sciences, BA (ASSBSBA)

Campus: WEST
Program Description: The social and behavioral sciences curriculum provides an understanding of assumptions underlying the social and behavioral sciences, develops research skills necessary for analysis of complex social issues, offers a flexible program tailored to the career goals of the individual student, and offers both individual and group experiences in working with faculty on concrete intellectual and policy issues. The core courses provide students a background suitable to helping them better understand psychological and/or social principles related to the behavior of individuals across multiple social contexts and institutions (e.g., family, community, society and culture).

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 119 Finite Mathematics.
Career Opportunities: The interdisciplinary degree is an excellent means toward creating a degree program that matches the individual's interests and fulfills many employers' expectations of a baccalaureate degree, namely that it should expose the student to a variety of outlooks and challenges. Such a degree will be competitive in most situations where the disciplinary social and behavioral degrees are accepted and is advantageous when seeking entry to broad professional programs such as regional planning or urban studies.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/sbs
FAB N251
SBS.Dept@asu.edu
602-543-6058

## Social \& Behavioral Sciences, BS (ASSBSBS) Campus: WEST

Program Description: The social and behavioral sciences curriculum provides an understanding of assumptions underlying the social and behavioral sciences; develops research skills necessary for analysis of complex social issues; offers a flexible program tailored to the career goals of the individual student; and offers both individual and group experiences in working with faculty on concrete intellectual and policy issues. The core courses provide students a background suitable to helping them better understand psychological and/or social principles related to the behavior of individuals across multiple social contexts and institutions (e.g., family, community, society and culture).

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 119 Finite Mathematics.

Career Opportunities: The interdisciplinary degree is an excellent means toward creating a degree program that matches the individual's interests and fulfills many employers' expectations of a bachelor's degree, namely, that it should expose the student to a variety of outlooks and challenges. Such a degree will be competitive in most situations where the disciplinary social and behavioral degrees are accepted and is advantageous when seeking entry to broad professional programs such as regional planning or urban studies.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/sbs
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Sociology, BA (ASSOCBA)

## Campus: WEST

Program Description: The B.A. curriculum in sociology, within the New College of Interdisciplinary Arts and Sciences, provides an understanding of theory, practice and policy underlying issues of social change, inequality and diversity from multiple perspectives, including race/ethnicity, gender, economic position, age, geographic location and position in the global political economy.
The program enhances students' understanding of social realities and institutions at local, national and international levels, and how sociology contributes to the other social sciences and to the humanities. Students gain a basic understanding of assumptions underlying the discipline of sociology and develop the research skills necessary for analysis of complex social issues. This is a flexible program with opportunities to work collaboratively with faculty on concrete intellectual and policy issues.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates apply the sociological perspective to a wide variety of jobs in business, the health professions, the criminal justice system, social services and government. Course work in sociology provides a valuable preparation for careers in journalism, politics, public relations or public administration, all fields that involve investigative skills and an ability to work with diverse groups. Graduates with an advanced degree in sociology may become:

- Community developers.
- Criminologists.
- Demographers.
- Gerontologists.
- Research analysts.
- Statisticians.
- Survey researchers.
- Urban planners.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/sociology
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Sociology, BS (ASSOCBS)

## Campus: WEST

Program Description: The B.S. curriculum in sociology within the New College of Interdisciplinary Arts and Sciences provides an understanding of theory, practice, and policy underlying issues of social change and of inequality and diversity from multiple
perspectives, including race/ethnicity, gender, economic position, age, geographic location and position in the global political economy. The program enhances students' understanding of social realities and institutions at local, national and international levels, and how sociology contributes to the other social sciences and to the humanities. Students gain basic understanding of assumptions underlying the discipline of sociology and develop the research skills necessary for analysis of complex social issues. The B.S. program requires six more credit hours of methods courses (both qualitative and quantitative) than the B.A. This is a flexible program with individual and group experiences in working with faculty on concrete intellectual and policy issues.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates apply the sociological perspective to a wide variety of jobs in business, the health professions, the criminal justice system, social services and government. A valuable preparation for careers in journalism, politics, public relations or public administration, all fields that involve investigative skills and an ability to work with diverse groups. Graduates with an advanced degree in sociology may become:

- Community developers.
- Criminologists.
- Demographers.
- Gerontologists.
- Research analysts.
- Statisticians.
- Survey researchers.
- Urban planners.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Social and Behavioral Sciences
http://newcollege.asu.edu/sbs/degrees/sociology
FAB S105
SBS.Dept@asu.edu
602-543-6058

## Spanish, BA (ASSPABA)

Campus: WEST

Program Description: The B.A. in Spanish program, within the New College of Interdisciplinary Arts and Sciences, emphasizes Spanish language, literature and culture, all of which are integrated within the discipline and with other disciplines within the college.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The Spanish program offers excellent preparation for graduate school or for employment as a teacher in either the elementary or secondary school system, especially in those districts where bilingual programs are integral to the curricula. Outside the education system, students majoring in Spanish can find employment as translators and interpreters in:

- Social agencies.
- Federal and state courts.
- Diplomatic corps.
- Law enforcement agencies.
- Law firms.

The business world also provides employment for those fluent in Spanish. This is especially true in the Southwest, with its proximity to Mexico, and through new outlets opened by the tri-national North American Free Trade Agreement.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/spanish
FAB N201
harcs.dept@asu.edu
602-543-4444

## Statistics, BS (ASSTABS)

Campus: WEST
Program Description: The B.S. in statistics prepares students for entry level positions as statisticians and for graduate training in statistics and related fields. Statistics is the science of collection, description, analysis and interpretation of data from experiments or surveys. Statisticians help to make decisions and solve problems in the face of uncertainty, using the limited data available from an experiment or survey. Because the use of statistical methods is common in all areas of business, government, natural and social sciences, the demand for individuals with all levels of statistical training is great. The program encompasses both theoretical and applied statistics, as well as the requisite foundations in mathematics and computing. The emphasis is on the more practical and applied aspects of statistics. Graduates of this program are equipped to utilize statistical techniques to explore interdisciplinary topics that span disciplines. These unique features emphasize the interdisciplinary nature of statistics and prepare graduates for employment as entry level statisticians or for graduate school.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: $N$.

Second Language Requirement: N .
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Career Opportunities: Statisticians are in high demand in many areas of industry, government, and academia. Some areas with particularly high demand include pharmaceutical, medical, manufacturing, and financial jobs.

## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Mathematical and Natural Sciences
http://newcollege.asu.edu/mns/
CLCC 217
mns@asu.edu
602-543-6050

## Campus: WEST

Program Description: The B.A. in women and gender studies, within the New College of Interdisciplinary Arts and Sciences, is an interdisciplinary program emphasizing intersectional approaches to the study of gender, race, class, ethnicity and sexuality in national and transnational contexts. Consistent with the university's design imperatives of social embeddedness and use-inspired research, the B.A. in women and gender studies, through its course offerings, research initiatives and co-curricular programs, seeks to further the understanding of women and gender, and to promote social justice.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The women and gender studies program builds a solid educational foundation, providing knowledge and critical thinking skills needed to deal with changing gender roles in society. The program also prepares students for opportunities in many settings:

- Business and professional schools.
- Education and training.
- Graduate study in the humanities and social sciences.
- Health care services.
- Human resources development.
- Public and business administration.
- Social services.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/womenstudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Women and Gender Studies, BS (ASWSTBS)

## Campus: WEST

Program Description: The B.S. in women and gender studies, within the New College of Interdisciplinary Arts and Sciences, is an interdisciplinary program emphasizing intersectional approaches to the study of gender, race, class, ethnicity and sexuality in national and transnational contexts. Consistent with the university's design imperatives of social embeddedness and use-inspired research, the B. S. in women and gender studies, through its course offerings, research initiatives and co-curricular programs, seeks to further the understanding of women and gender, and to promote social justice. The B.S. program is distinguished by its quantitative emphasis.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: WEST campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: The women and gender studies program builds a solid educational foundation, providing knowledge and critical thinking skills needed to deal with changing gender roles in society. The program also prepares students for opportunities in many settings:

- Business and professional schools.
- Education and training.
- Graduate study in the humanities and social sciences.
- Health care services.
- Human resources development.
- Public and business administration.
- Social services.


## Contact Information:

Interdisciplinary Arts \& Sciences, New College of
Division of Humanities, Arts, and Cultural Studies
http://newcollege.asu.edu/harcs/degrees/majors/womenstudies
FAB N201
harcs.dept@asu.edu
602-543-4444

## Nursing and Health Innovation, College of

## Nursing, BSN (NUNURDBSN)

Campus: DTPHX, ONLNE
Program Description: Through a curriculum based upon evidence-based practice, clinical reasoning, innovation, interprofessional communication, and information technology, the B.S.N. program prepares students to provide the highest quality of professional nursing care. General education course work within the curriculum, including the sciences, cultural diversity, global and historical awareness, literacy and critical inquiry, mathematical studies, social and behavioral sciences and the humanities, provides a strong foundation for the nursing theory and clinical/experiential courses.
The B.S.N. program offers two concentrations. The R.N.-B.S.N. concentration offers registered nurses and recent associate/diploma nursing graduates the opportunity to complete upper division nursing course work that will earn the student a baccalaureate degree in nursing.

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.

## Admission Requirements:

Traditional Pre-licensure Clinical Nursing Program Concentration
This program is only offered at the Downtown Phoenix campus.
Applicants who do not have an associate degree in nursing or a nursing diploma and do not have their R.N. license will apply to the Traditional Pre-licensure Clinical Nursing Program and will be reviewed by the Nursing Admissions Committee on an individual basis. Students must meet the following minimum criteria to be considered by the committee:
Freshman resident: 3.00 ABOR GPA or 500 GED, and either a 1040 SAT or 22 ACT score, or in the top 25 percent of high school graduating class.
Freshmen non-resident: 3.00 ABOR GPA or 500 GED and either an 1110 SAT or 24 ACT score, or in the top 25 percent of high school graduating class.
Transfer resident and non-resident: cumulative transfer GPA of 3.50.
Admission is competitive so early application is recommended.
R.N.-B.S.N. Concentration

This program is only offered as an online option.
Applicants must meet university minimum admission requirements.
Students who have not signed the community college pathway agreement need 1) a 2.50 GPA, and 2) ENG 101, ENG 102, and a statistic course. For additional requirements, please see
https://nursingandhealth.asu.edu/files/programs/nursing/undergraduate/rnbsn/application.pdf.

Students who have signed the community college pathway agreement need 1) a 2.50 GPA in the following courses: BIO 201, BIO 202, CHM 101, ENG 101, ENG 102, MIC 205, PGS 101 or CDE 232, and 2) a statistic course. For additional requirements, please see https://nursingandhealth.asu.edu/files/programs/nursing/undergraduate/rnbsn/application.pdf.
Additional information available at http://asuonline.asu.edu/nursingonline, or call 877-511-3830.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Eastern Arizona College.

Career Opportunities: Graduates deliver nursing care to individuals, families and communities. B.S.N. graduates are eligible to sit for the national licensing examination for registered nurses. Completion of this degree program also prepares individuals for entrance into graduate study in nursing at the master's degree level, which is essential for teaching, administration, clinical specialization and nursing research.

## Contact Information:

Nursing \& Health Innovation, College of
College of Nursing \& Health Innovation
http://nursingandhealth.asu.edu/
NHI 2
nursing@asu.edu
602-496-0852

## Nutrition and Health Promotion, School of <br> Applied Science (Food Service Management), BAS (ECNTRBAS)

Campus: DTPHX, POLY

Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institutions. In completing the B.A.S., students complete all ASU graduation requirements. The concentration in food service management is aimed at those students with a specialty in culinary or hospitality science.

## Additional Program Fee: N. <br> Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree. Not available for freshmen.

Career Opportunities: This degree prepares students for careers in food production, service, management and marketing. With additional education and/or professional training, students may also become credentialed as certified dietary managers, school food service and nutrition specialists or registered sanitarians.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
HSC 1386
healthpromotion@asu.edu
480-727-1333

## Applied Science (Health Sciences), BAS (NUHSCBAS)

Campus: DTPHX, ONLNE
Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institutions. In completing the B.A.S., students complete all ASU graduation requirements. The concentration in health sciences is designed to provide the academic knowledge and skills to allow students with an A.A.S. degree from a previously-approved health related program to advance their employment opportunities within the health field and/or continue into a graduate program of study.

## Additional Program Fee: N.

Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree. Not available for freshmen.

Career Opportunities: With the completion of the B.A.S. with a concentration in health sciences, graduates will be able to return to their original area of expertise in allied health (i.e., radiology, nuclear imaging) and qualify for a managerial position, as an educator/instructor within their field of expertise, and/or a higher position grade within their current place of employment. Other career options include positions such as:

- Elder services program coordinator.
- Health/patient educator.
- Healthy Start coordinator.
- HMO/insurance company client coach.
- Home health care coordinator.
- Longterm care health/wellness coordinator.
- School health and program specialist.
- WIC/Community nutrition aide.


## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/
MERC C250
healthpromotion@asu.edu
602-496-0888

## Exercise \& Wellness (Exercise \& Wellness), BS (ECEXWBS)

Campus: DTPHX, POLY

Program Description: The B.S. in exercise and wellness with a concentration in exercise and wellness provides student with the knowledge, skills and professional expertise to assist individuals across the lifespan in adopting physical activity and other healthy behaviors that lead to increased fitness, wellness and optimal health.
The exercise and wellness concentration prepares students in:

- Fitness and wellness behaviors to varied populations.
- The knowledge, skills, and ethics for instructing, assessing, prescribing, and promoting.
- Methods for promoting health behavior change.
- The sciences of cardiovascular and muscular fitness, nutrition, and stress management.

Students are exposed to the latest research and practices designed to enhance fitness and wellness through both laboratory and field experiences.
Distinctive features of the exercise and wellness concentration include an outstanding capstone internship that provides preprofessional experience in the fitness, wellness and health industry both locally and nationally, and a focus on practical hands-on application of knowledge and skills learned throughout the program.
The preparation and internship in this program prepares students for multiple career opportunities across fitness and wellness industries and health promotion settings as well as further graduate study in such fields as exercise science, physical therapy, dentistry and medicine.
Students offered admission into this degree program will pursue the degree on the Downtown Phoenix campus beginning in Fall 2011.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Eastern Arizona College, Maricopa County Community College District.

Career Opportunities: Students who complete a B.S. degree in the exercise and wellness concentration will have enhanced opportunities in fitness and wellness employment settings because clients and employers prefer to work with people who more highly prepared and qualified.
Example Careers: Undergraduates in this concentration often pursue careers in such fields as:

- Active adult planned community fitness and health promotion.
- Cardiac rehabilitation.
- Country club fitness.
- Hospital based fitness centers.
- Personal trainers.
- Spa fitness.
- Sports medicine clinics.
- Strength and conditioning coach.
- Wellness centers.
- Worksite fitness and health promotion.

Graduates may pursue further graduate study in such fields as:

- Exercise science.
- Medical school.
- Physician assistant.
- Physical therapy.


## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/wellness/undergraduate/index.htm
MERC C250
healthpromotion@asu.edu
602-496-0888

## Exercise \& Wellness (Health Promotion), BS (ECEXWHBS)

Campus: DTPHX, POLY
Program Description: The B.S. in exercise and wellness with a concentration in health promotion provides students with the knowledge, skills and expertise to assist individuals across their lifespan in adopting healthy lifestyles.
The health promotion concentration focuses on the development and delivery of programs that enhance awareness about healthy lifestyle behavior, increasing health-enhancing behaviors, decrease health risk behaviors and create environments supportive of healthy lifestyles.
Students are prepared in:

- Designing, implementing, administering and evaluating effective health promotion.
- Foundational knowledge in nutrition, physical activity, stress and substance abuse as they relate to health and chronic disease prevention.
- Methods for promoting health behavior change.
- Professional knowledge, skills and ethics for assessing group and community health needs.

Distinctive features of the health promotion concentration include an outstanding capstone internship that provides preprofessional experience in health promotion settings and a focus on application of the knowledge and skills learned throughout the program.
Students offered admission into this degree program will pursue the degree on the Downtown Phoenix campus beginning in Fall 2011.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The rising cost of health care has increased the need for individuals in health promotion. As health care costs continue to rise, insurance companies, employers, and governments are attempting to find ways to curb costs. One of the more cost-effective ways is to employ health promotion professionals to teach people how to live healthy lives and avoid costly treatments for illnesses. Health promotion professionals work in various environments based on the industry in which they are employed. In public health, nonprofit organizations, corporations and businesses, colleges and universities, and medical care settings, they primarily work in offices. However, they may spend a lot of time away from the office implementing and attending programs, meeting with community organizers, speaking with patients, or teaching classes.
Example Careers: Undergraduates in this concentration often pursue careers in such fields as:

- College and university wellness and health promotion.
- Government health departments and agencies.
- Health coaching.
- Non-profit disease prevention agencies.
- Private health care organizations.
- Wellness centers.
- Worksite health promotion.

Graduates may pursue further graduate study in such fields as:

- Dental school.
- Health education.
- Health promotion.
- Health psychology.
- Medical school.
- Physician assistant.
- Public health.


## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/wellness/undergraduate/index.htm
MERC C250
healthpromotion@asu.edu
602-496-0888

## Health Sciences (Health Policy), BS (NUHSCHPBS)

Campus: DTPHX

Program Description: The B.S. in health sciences is designed to provide the academic knowledge and skills to allow students to move directly into a range of employment opportunities within the health field and/or continue their education in discipline-specific programs. Students will complete a complement of core courses that emphasize ethics, communication skills, critical thinking and cultural awareness. The program includes three unique concentrations: pre-professional, healthy lifestyle coaching and health policy.
The health policy concentration is targeted toward students interested in the community policy aspects of disease prevention and health promotion. The continuum of health care now spans a diverse array of health providers ranging from private practitioner offices and outpatient care centers to residential care facilities and acute care hospitals. Key to the enhancement of health care within the U.S. is the development and implementation of innovative, cost effective and universally accessible programs. Students in this concentration will be required to complete a supervised practicum, providing hands-on experience within their field of interest. Students may also wish to consider using their electives to complete a minor in nonprofit administration, which requires a total of 15 credits.

Additional Program Fee: $N$.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: Career opportunities are available in city, county and/or state departments of health, with additional employment opportunities in the health insurance industry, non-profit sector and within various corporate entities providing health care.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/healthsciences
MERC C250
healthpromotion@asu.edu
602-496-0888

## Health Sciences (Healthy Lifestyles Coaching), BS (NUHSCHLCBS)

Campus: DTPHX
Program Description: The B.S. in health sciences is designed to provide the academic knowledge and skills to allow students to move directly into a range of employment opportunities within the health field and/or continue their education in discipline-specific programs. Students will complete a complement of core courses that emphasize ethics, communication skills, critical thinking and cultural awareness. The program includes three unique concentrations: pre-professional, healthy lifestyles coaching and health policy.
The healthy lifestyles coaching concentration is targeted towards students who have a broad interest in health education and are seeking immediate employment in the community health education/health promotion field.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Career options include positions such as:

- Elder service/congregate meal program coordinator.
- Health/patient educator.
- Healthy start coordinator.
- School health and nutrition program specialist.
- Women, infants and children/community nutrition aide.


## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/healthsciences
MERC C250
healthpromotion@asu.edu
602-496-0888

## Health Sciences (Pre-professional), BS (NUHSCPREBS) <br> Campus: DTPHX

Program Description: The B.S. in health sciences is designed to provide the academic knowledge and skills to allow students to move directly into a range of employment opportunities within the health field and/or continue their education in discipline-specific programs. Students will complete a complement of core courses that emphasize ethics, communication skills, critical thinking and cultural awareness. The program includes three unique concentrations: pre-professional, healthy lifestyle coaching and health policy.
The pre-professional concentration is targeted towards students planning on entering medical, dental, osteopathic, physical therapy, veterinary, pharmacy and similar professional schools. In addition to a comprehensive core of basic science courses, the concentration is unique in that it will provide a solid base in ethics, communication, the evaluation of research (the cornerstone of evidence-based practice) and healthy lifestyles (the foundation of health promotion and chronic disease risk reduction avenues of health care), including the role of complementary and alternative care within the U.S. health care system. Students will also have the ability to incorporate electives that contribute to their knowledge of and sensitivity to the needs of populations impacted by health disparities.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 251 Calculus for Life Sciences.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: If not entering an advanced degree program in the medical field, employment opportunities include:

- Clinical research coordinator.
- Health officer
- Laboratory scientist.
- Sales/marketing representative for pharmaceutical and/or medical device companies.


## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/healthsciences
MERC C250
healthpromotion@asu.edu
602-496-0888

## Kinesiology, BS (NUKINBS)

Campus: DTPHX, TEMPE

Program Description: Kinesiology is a discipline emphasizing the study of movement as it relates to physical activity, health and disease prevention, exercise and sport. Using both human and animal models and reflecting research ranging from basic to applied, it draws from an interdisciplinary body of knowledge grounded in the biological, psychological, physical and social sciences. Undergraduate students in the program gain a disciplinary knowledge of the anatomical, biomechanical, developmental, neural, physiological and psychological mechanisms underlying human movement.
Campus Location: Students admitted to the kinesiology program prior to Fall 2011 will attend classes at the Tempe campus. Beginning Fall 2011, all admitted students will attend classes at the Downtown Phoenix campus.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Admission Requirements: Fall 2010
All applicants must meet university minimum admission requirements.
Effective Spring 2011
Freshmen admission:

- Have a minimum ABOR GPA of 3.30; and high school class rank in the top 15th percentile; or an SAT score of 1140 or higher or an ACT score of 25 or higher.
- Meet math competency (Four years Math, including Algebra 1, Geometry, Algebra II and one course requiring Algebra II as a prerequisite)
Transfer students with fewer than 24 transferable college credit hours:
- Admissions will be based on the standards used for freshmen admission.

Transfer students with greater than 24 transferable college credit hours:

- Minimum transfer GPA of 3.30 or higher.

Please note: The Major Map posted is for the 2010-2011 academic year. The kinesiology B.S. is undergoing curricular changes. Students admitted for Fall 2011 and Spring 2012 will be under the 2011-2012 catalog year and subject to the new curriculum and 2011-2012 Major Map.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: An undergraduate degree in kinesiology prepares students for graduate study in a variety of clinical and research settings including:

- Chiropractic.
- Dentistry.
- Kinesiology.
- Medical School.
- Occupational Therapy.
- Physician Assistant.
- Physical Therapy.


## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/advising/kinesiology.htm
PEBW 218
kinesiology@asu.edu
480-965-3875

## Nutrition (Dietetics), BS (ECNTRDBS)

Campus: DTPHX, POLY
Program Description: The dietetics concentration, under the B.S. in nutrition, provides all of the academic course work a student needs to qualify to become a registered dietitian (R.D.). A registered dietitian is a food and nutrition expert who has met the minimum academic and professional requirements to qualify for the credential. In addition to a core of professional nutrition courses, students must complete a broad range of science, management and communication classes. The program emphasizes the application of nutrition within clinical, community, food production and wellness sites. Graduates of the program can apply to complete a dietetic internship, which will further prepare them to take the exam to become an R.D. The dietetics program is currently granted accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetic Association. Students offered admission into this degree program will pursue the degree at either the Polytechnic or Downtown Phoenix campus, based on the following criteria:

- Students admitted immediately after earning a high school diploma, regardless of any earned college credit (or who have not attended any college since high school graduation), will pursue the program at the Downtown Phoenix campus.
- Students admitted after attending community college or another university will pursue the program at the Polytechnic campus, and will be reviewed by an advisor to determine their level of progression in the program.

Students who will not be enrolling in upper-division courses in the major may have their campus changed to the Downtown Phoenix campus, and may pursue the program at that campus, if it is deemed possible by an academic advisor.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The nutrition/dietetics field provides employment opportunities in:

- Consulting.
- Education.
- Food/nutrition marketing and sales.
- Hospitals and other healthcare facilities.
- Nutrition/health promotion.
- Public health agencies.
- School food services.


## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
MERC C250
healthpromotion@asu.edu
602-496-0888

## Nutrition (Food \& Nutrition Management), BS (ECNTRMBS)

Campus: DTPHX, POLY
Program Description: The food and nutrition management concentration in the B.S. in nutrition is designed to provide students with an understanding of the food industry and the ability to apply nutrition principles to food production. Students will be able to manage and market food and develop a food or menu that meets a specific nutrition guideline.
Students offered admission into this degree program will pursue the degree at either the Polytechnic or Downtown Phoenix campus, based on the following criteria:

- Students admitted immediately after earning a high school diploma, regardless of any earned college credit (or who have not attended any college since high school graduation), will pursue the program at the Downtown Phoenix campus.
- Students admitted after attending community college or another university will pursue the program at the Polytechnic campus, and will be reviewed by an advisor to determine their level of progression in the program.

Students who will not be enrolling in upper-division courses in the major may have their campus changed to the Downtown Phoenix campus, and may pursue the program at that campus, if it is deemed possible by an academic advisor.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: This degree prepares students to become food service directors at schools, health care facilities and corporate food service operations. Our graduates aspire to own restaurants or nutrition-related businesses, work in supplement or pharmaceutical sales, or work in food marketing and distribution.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
MERC C250
healthpromotion@asu.edu
602-496-0888

## Nutrition (Human Nutrition), BS (ECNTRHBS)

Campus: DTPHX, POLY
Program Description: The human nutrition concentration, under the B.S. in nutrition, provides students with a strong foundation in nutrition and science, leading to medical school or health professions. Students from this program have gone on to study:

- Dentistry.
- Naturopathic medicine.
- Optometry and podiatry.
- Osteopathic medicine.
- Pharmacy.
- Physician assistants.

The focus on human nutrition offers students all of the science course work they need to succeed in continued educational opportunities. Course work includes anatomy, physiology, chemistry and microbiology. Students gain knowledge of nutritional concepts that health care professionals sometimes lack.
Students offered admission into this degree program will pursue the degree at either the Polytechnic or Downtown Phoenix campus, based on the following criteria:

- Students admitted immediately after earning a high school diploma, regardless of any earned college credit (or who have not attended any college since high school graduation), will pursue the program at the Downtown Phoenix campus.
- Students admitted after attending community college or another university will pursue the program at the Polytechnic campus, and will be reviewed by an advisor to determine their level of progression in the program.

Students who will not be enrolling in upper-division courses in the major may have their campus changed to the Downtown Phoenix campus, and may pursue the program at that campus, if it is deemed possible by an academic advisor.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The nutrition field provides employment opportunities in health care, public health, education, food service, food/nutrition marketing and sales, and nutrition/health promotion and consulting. Graduates of the human nutrition program often go on to apply to other health education or M.S. programs. The area of research is also a good fit for nutrition majors. Several outstanding scientists have received their bachelor's degree from this program; add a master's degree or a Ph.D. and the opportunities within the research field are unlimited.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
MERC C250
healthpromotion@asu.edu
602-496-0888

## Nutrition (Nutrition Communication), BS (ECNTRCBS)

Campus: DTPHX, POLY

Program Description: The nutrition communication concentration, under the B.S. in nutrition, was developed in collaboration with the Walter Cronkite School of Journalism and Mass Communication. While focusing on human nutrition, students take classes designed to build a foundation toward becoming expert communicators on issues related to food and nutrition. Nutrition courses provide the content for articles that students write in their communication classes. This degree program provides students with a strong understanding of the scientific method, statistics, nutrition, healthcare, fitness and wellness that many traditional journalists lack. Faculty members teach students how to avoid sensationalism or sacrificing reality to get a better story.
Students offered admission into this degree program will pursue the degree at either the Polytechnic or Downtown Phoenix campus, based on the following criteria:

- Students admitted immediately after earning a high school diploma, regardless of any earned college credit (or who have not attended any college since high school graduation), will pursue the program at the Downtown Phoenix campus.
- Students admitted after attending community college or another university will pursue the program at the Polytechnic campus, and will be reviewed by an advisor to determine their level of progression in the program.

Students who will not be enrolling in upper-division courses in the major may have their campus changed to the Downtown Phoenix campus, and may pursue the program at that campus, if it is deemed possible by an academic advisor.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The nutrition communication field offers employment opportunities with newspapers, magazines, Web-based corporations, community and healthcare agencies and private corporations (e.g., public relations firms). With this degree, graduates can pursue careers as authors, freelance writers for newspapers and magazines, public relations representatives for food and beverage companies or consultants in program or product development.

## Contact Information:

Nutrition and Health Promotion, School of
School of Nutrition and Health Promotion
http://nursingandhealth.asu.edu/programs/nutrition
MERC C250
healthpromotion@asu.edu
602-496-0888
Public Programs, College of

## Criminal Justice \& Criminology, BS (PPCRIMJBS)

Campus: DTPHX, ONLNE

Program Description: The study of criminal justice and criminology involves analysis of the theories, laws, policies and practices associated with understanding criminal and delinquent behavior, the law and the response to violations of law. The program provides an interdisciplinary social science perspective to the study of crime and criminal justice. The focus is on:

- Criminal justice policies and practices.
- The nature of crime and criminological theory.
- The various components of the criminal justice system including law enforcement, corrections and the courts.

Students receive a solid foundation of course work that provides the content, analytical and communication skills required for working in complex criminal justice occupations.
The School of Criminology and Criminal Justice administers the program from the Downtown Phoenix campus. While most criminal justice and criminology courses are offered on that campus, students may also take criminal justice and criminology courses at the Tempe Campus and Online.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Cochise College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: Graduates of the criminal justice and criminology program find a strong job market in the public and private sectors. Employment opportunities exist in the areas of:

- Corrections.
- Court personnel.
- Law enforcement.
- Legal offices.
- Parole.
- Private security.
- Probation.
- Victim advocate agencies.

Graduates may also pursue advanced degrees in law, criminology and criminal justice and other social science disciplines.

Contact Information:

Public Programs, College of
School of Criminology and Criminal Justice
http://ccj.asu.edu/
UCENT 600
sccj@asu.edu
602-496-2356

## Nonprofit Leadership \& Management, BS (PPNLMBS)

Campus: DTPHX
Program Description: Through the B.S. in nonprofit leadership and management program, students are empowered to become successful professionals who positively impact the community in which they work. The nonprofit sector in the United States is unique in form and function. This sector includes institutions and individuals situated between government, public and business entities. It is this sector, with more than 1.2 million organizations in the U.S., that mediates, innovates and promotes social causes and services.
Philanthropy (voluntary action for the public good) is a hallmark of the nonprofit sector as individuals give their time, money and know-how to causes about which they care. Students in the nonprofit leadership and management program learn about the nonprofit sector through curriculum instruction and field experience. The required internship component of the program leads students to professional opportunities within the nonprofit sector. Within the undergraduate degree requirements, students may also choose to pursue an American Humanics Certificate and subsequently earn national certification from American Humanics, Inc., which will prepare them to lead and strengthen nonprofit organizations. For more information, access the school's website.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: DTPHX campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: $N$.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Central Arizona College, Maricopa County Community College District.

Career Opportunities: Depending on their interests, graduates seek work in various areas of the nonprofit sector. They find employment in diverse settings that include affiliates of well-known national organizations, such as:

- American Red Cross.
- America's Second Harvest.
- The Humane Society of the United States.
- March of Dimes.
- National Urban League.
- United Way.
- Youth-serving entities such as Big Brothers Big Sisters, Boys and Girls Clubs, Boy Scouts of America, Girl Scouts of the USA, Camp Fire USA and the YMCA of the USA.

Increasing opportunities in the nonprofit sector include careers across the spectrum of community issues such as the arts, environment, health care and others. Typical positions include roles as:

- Development directors.
- Field executives.
- Program directors.
- Volunteer coordinators and similar positions from a variety of agencies and organizations.


## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu

## Parks \& Recreation Management, BS (PPPRMBS)

Campus: DTPHX

Program Description: The B.S. in parks and recreation management provides an interdisciplinary education in the management of parks, protected areas, community-based recreation services, and special event management. The parks and recreation fields emerged from the youth development, and recreation and park movements of the late 19th century. Students learn to integrate the managerial, natural and social sciences to make informed decisions for recreation service delivery.
The curriculum of classroom instruction and field experiences covers:

- Communication.
- History.
- Inclusive services.
- Management.
- Parks and recreation policy.
- Planning.
- Programming.

The required internship component of the program allows students to gain practical experience in the parks and recreation professions. The B.S. in parks and recreation management prepares students for professional positions in a variety of public, private and nonprofit organizations. The National Recreation and Park Association accredits this degree program. There are three areas of emphasis:

- Community recreation services management.
- Natural resource recreation management.
- Special event management.

Students interested in the B.S. in Parks and Recreation Management may also be interested in the school's Therapeutic Recreation program. See the school website for details.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: This degree program prepares students for professional positions in a variety of public, private and nonprofit organizations. Graduates are employed in a variety of settings in Arizona, nationally and abroad. Graduates find employment in such diverse settings as:

- City park and recreation departments.
- County and state park agencies.
- Federal natural resource agencies.
- Hospitals.
- Special event management.
- Sport venues.
- Tour operations.
- Youth agencies.

In such settings, graduates design, develop and manage services that address the recreational needs of a particular clientele.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Parks \& Recreation Management (Therapeutic Recreation), BS (PPPRMTRBS)

Campus: DTPHX
Program Description: The B.S. in parks and recreation management with a concentration in therapeutic recreation is the only program in Arizona that prepares students for national professional certification in therapeutic recreation. The program is designed for students who have an interest in providing therapeutic interventions and adaptive recreation services for individuals with social problems, illnesses and disabling conditions. The required internship component of the program allows students to gain practical experiences in the therapeutic recreation field. Students who choose this concentration are truly committed to improving people's lives and contributing to their communities.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: DTPHX campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: There are a range of job opportunities for therapeutic recreation professionals ranging from clinical settings such as hospitals and nursing homes to adventure programming for youth-at-risk and people with disabilities.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu/portal/
UCENT 550
scrd@asu.edu
602-496-0550

## Public Service \& Public Policy, BS (PPPAFBS) <br> Campus: DTPHX

Program Description: The Bachelor of Science in public service and public policy (PSPP) prepares students for work in government at all levels and nonprofit organizations through comprehensive coverage of topics in public policy, public leadership and management, and urban studies. Students discover the challenges of management and learn how to lead a public organization and understand the process of policy development. This program examines the public sector and address the challenges it faces in a practical way. The PSPP program is unique because it enables you to study public service, policy and administration with a professional focus.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: DTPHX campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: $N$.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: This degree provides you with the knowledge and skills to transform government and policy at all levels. The public service sector offers sustainable, exciting and fulfilling career options. Upon graduation, you will be empowered to use your
knowledge of the public sector as a catalyst to change the world. By understanding the challenges that government faces and being well-versed in the development of multiple, useful and realistic solutions, you will contribute to the development of our local, national and global communities.
A B.S. in public service and public policy prepares students for entry and mid-level supervisory and managerial positions in city, county, state and federal agencies. For those who already have work experience, the degree provides further opportunity for promotion.
The public policy concentration provides students with more specialized skills to allow them to contribute to the policy process. The urban and metropolitan studies concentration provides a broad-based interdisciplinary understanding of urban government with a focus on creating educated citizens who follow a variety of paths to community involvement.
The public leadership concentration provides students an understanding of the leadership and management challenges of organizations and prepares them for supervisory level positions.

## Contact Information:

Public Programs, College of
School of Public Affairs
http://spa.asu.edu/pspp/
UCENT 400
spa@asu.edu
602-496-0450

## Social Work, BSW (PPSWUSWU) <br> Campus: DTPHX, WEST

Program Description: Social work practitioners are committed to the enhancement of individual, family and group problem-solving capacities and the creation of a more nurturing, just and humane social environment. The undergraduate curriculum leads to a Bachelor of Social Work. Juniors and seniors majoring in social work focus on social work courses in social policy and services, human behavior in the social environment, social work practice, research and field instruction in community agencies. In addition, majors take elective courses in related areas.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: DTPHX campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District, Pima Community College.

Career Opportunities: The B.S.W. practitioner is a generalist focusing on roles such as advocacy, referral, case management and problem-solving functions with individuals, groups, families, organizations and the community.
Employment in social work is expected to increase commensurately with the needs of a growing and diverse population. Social workers are employed in public and private agencies dealing with a wide variety of social issues, including:

- Adoptions.
- Aging.
- AIDS.
- Child abuse.
- Corrections.
- Delinquency.
- Disability.
- Discrimination.
- Domestic violence.
- Family dysfunction.
- Foster care.
- Health.
- Homelessness.
- Mental health.
- Poverty.
- School-related problems.
- Substance abuse.
- Teen pregnancy.

Social work skills such as problem-solving, resource utilization, counseling, group work and community organization are also useful for positions with industry in employee relations and mediation.

## Contact Information:

Public Programs, College of
School of Social Work
http://ssw.asu.edu
UCENT 800
social.work@asu.edu
602-496-0800

## Tourism Development \& Management, BS (PPTDMBS) Campus: DTPHX

Program Description: Through the B.S. in tourism development and management, students acquire the planning and management skills related to the growth and development of tourism throughout the world. The curriculum prepares students for employment across a wide variety of occupations in the rapidly expanding travel and tourism industry, while taking full advantage of its strong connections with the professional tourism community in Phoenix.
The required internship component of the program allows students to gain practical experiences leading to professional positions in various travel, tourism and related fields. Exposure to the businesses of heritage tourism, sustainable tourism, resort management and meeting and convention planning prepare students for successful careers in the travel and tourism industry. While pursuing the B.S. in tourism development and management, a student may also choose to complete a certificate in convention sales and meeting planning. Additionally, students have the opportunity to participate in a study abroad program.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: The travel and tourism industry is the largest employer in the world and the second largest in Arizona. Based upon interests, graduates can seek work in the public, nonprofit or private/commercial sectors. Graduates find employment in such diverse settings as resorts, meeting planning, convention and visitor bureaus, tour operations and commercial recreation businesses. In such settings, graduates design, develop and manage services that address the needs of a particular clientele. The metropolitan Phoenix area is a major hub of tourism in the southwestern U.S. and has experienced rapid growth in:

- Business and corporate travel.
- Meetings and conventions.
- Resorts and hotels.
- Sports tourism.
- State and national parks.
- The air transportation sector.
- The gaming and casino sectors.


## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu

## Tourism Development \& Management (Resort and Accommodations Leadership), BS (PPTDMRBS) Campus: DTPHX

Program Description: The concentration in resort and accommodations leadership will attract students and professionals who have interests in the diverse areas of knowledge needed within the accommodations sector such as meeting the expectations of hotel and resort guests; the interrelated functions within departments of the lodging and food and beverage industries; ecological, social and economic sustainability practices in the industry; management and leadership specifically for the accommodations sector; and career opportunities. A concentration in resort and accommodations leadership will provide students an academic option to study in-depth the resort and accommodations system/sector and gain knowledge of the importance of the business relationships between suppliers, intermediaries/vendors, guests and the public and private sectors. The concentration will prepare students to serve our community by developing skills, knowledge, techniques and capabilities to address major issues related to resorts and other tourism accommodations.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: There are a variety of job opportunities for resort or hotel professionals ranging from entry level as a management trainee to an assistant manager or manager in various departments such as a front desk manager, room division manager, sales/marketing manager, guest services manager, catering/banquet manager, and convention sales manager.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-0550

## Tourism Development and Management (Sustainable Tourism), BS (PPTDMSBS) Campus: DTPHX

Program Description: The tourism development and management major, within the School of Community Resources and Development, provides students with the theoretical understanding necessary to maneuver the complexities of one of the world's largest industries. A concentration in sustainable tourism will allow majors to hone their understanding of the key concepts of sustainability and how they can be applied to tourism destinations and development. Students will learn the dominant theories and language that make up sustainability science and the skills necessary to measure, create and implement sustainability policies in tourism destinations from the planning to the management stage of development. Students will take courses offered by the School of Sustainability in addition to courses in the School of Community Resources and Development, guaranteeing that they have a strong foundation in the basic theories of the growing discipline of sustainability while applying these newfound skills to tourism development and management.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: The area of sustainable tourism is becoming increasingly important. Many tourism
businesses are hiring sustainability coordinators, including hotels, airlines, convention and visitor bureaus, and large attractions. Tour companies, such as those that implement ecotourism and volunteer tourism experiences, are especially interested in employees with a
strong sustainable tourism background. Numerous sustainable tourism nonprofit organizations have emerged in recent years, and many government related tourism organizations also hire those with a strong sustainability focus. As well, consulting opportunities are available to assist tourism businesses with development of sustainable practices.

## Contact Information:

Public Programs, College of
School of Community Resources and Development
http://scrd.asu.edu
UCENT 550
scrd@asu.edu
602-496-1056

## Urban \& Metropolitan Studies, BA (PPURBBA)

Campus: DTPHX

Program Description: Located in the heart of downtown Phoenix, the urban and metropolitan studies program is for students who have a yearning to study and understand urban theory in order to effectively address the challenges of rapid growth, along with other contemporary urban issues.
Our students discover what makes the city tick - and the city is their classroom. They examine challenges and solutions by researching history, society, culture, economy and politics in order to understand urban theory. They use that knowledge to get involved in their communities; giving them an outlet through which they can experience practical ways of solving complex problems faced by metropolitan regions. Our students are invested in their neighborhoods. Many of them live and work downtown. In the urban and metropolitan studies program, they learn how to improve urban health and well-being, often training themselves to be the future leaders of our urban environments. Our students don't stop there; others focus on making a wide variety of other contributions to society, studying the role of arts and culture, business and property development, revitalization and community building in the life of the region.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: DTPHX campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: The urban and metropolitan studies program prepares students for work in a wide range of fields. The interdisciplinary approach of the program allows graduates to successfully enter fields as diverse as:

- Architecture and finance.
- City management and policy.
- City planning and law.
- Nonprofit management.
- Real estate development.

Graduates from this program work in public, private and not-for-profit fields dedicated to improving urban life. Many graduates also pursue advanced degrees in:

- Arts administration.
- Business.
- Education.
- Historic preservation.Law.
- Journalism.
- Public policy.
- Public administration.
- Real estate development.
- Urban planning and other fields.


## Contact Information:

Public Programs, College of
School of Public Affairs
http://spa.asu.edu/new/urban/default.htm

## Urban \& Metropolitan Studies, BS (PPURBBS)

Campus: DTPHX

Program Description: Located in the heart of downtown Phoenix, the urban and metropolitan studies program is for students who have a yearning to study and understand urban theory in order to effectively address the challenges of rapid growth, along with other contemporary urban issues.
Our students discover what makes the city tick - and the city is their classroom. They examine challenges and solutions by researching history, society, culture, economy and politics in order to understand urban theory. They use that knowledge to get involved in their communities; giving them an outlet through which they can experience practical ways of solving complex problems faced by metropolitan regions. Our students are invested in their neighborhoods. Many of them live and work downtown. In the urban and metropolitan studies program, they learn how to improve urban health and well-being, often training themselves to be the future leaders of our urban environments. Our students don't stop there; others focus on making a wide variety of other contributions to society, studying the role of arts and culture, business and property development, revitalization and community building in the life of the region.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: DTPHX campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: The urban and metropolitan studies program prepares students for work in a wide range of fields. The interdisciplinary approach of the program allows graduates to successfully enter fields as diverse as:

- Architecture and finance.
- City management and policy.
- City planning and law.
- Nonprofit management.
- Real estate development.

Graduates from this program work in public, private and not-for-profit fields dedicated to improving urban life. Many graduates also pursue advanced degrees in:

- Arts administration.
- Business.
- Education.
- Historic preservation.
- Journalism.
- Law.
- Public policy.
- Public administration.
- Real estate development.
- Urban planning and other fields.


## Contact Information:

Public Programs, College of
School of Public Affairs
http://spa.asu.edu/new/urban/default.htm
UCENT 400
spa@asu.edu
602-496-0450

Sustainability, School of

## Sustainability, BA (SUSUSTBA)

## Campus: TEMPE

Program Description: The B.A. in sustainability introduces students to the concept of sustainability in the context of real-world problems, exploring the interaction of environmental, economic and social systems. Although the program is transdisciplinary, the B.A. in sustainability is best suited to those inclined toward social sciences, planning or related fields.

Students pursuing a B.A. in sustainability can pursue the following tracks:

- International development and sustainability.
- Policy and governance in sustainable systems.
- Society and sustainability.
- Sustainable urban dynamics.

Students will gain a general understanding of sustainability issues at the local, regional and global level. They will be adaptable, capable of both communicating and learning across a number of disciplines, and have a strong orientation toward problem solving.

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Additional Program Fee: N.
Second Language Requirement: Y .
First Required Math Course: MAT 117 College Algebra.
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Admission Requirements: The School of Sustainability has higher admission requirements. Applicants must select a second choice for their major on the application. Students who are not admitted to the School of Sustainability and who did not select a second major or are not admissible to the second major choice will be admitted to the exploratory social and behavioral sciences program within University College. Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Freshman applicants must meet the following standards:

- Have a minimum high school ABOR GPA of 3.30; AND
- A high school class rank in the top 15 percent of class; OR
- An SAT combined score of 1140 or higher; OR
- An ACT combined score of 25 or higher.
- No high school math competency deficiency.

Transfer students (with 12 or more transfer hours after high school graduation) are required to have a cumulative transfer GPA of 3.30 or higher.

ASU students who would like to change their major to sustainability are required to have a cumulative ASU GPA of 3.30 or higher (based on at least 12 credit hours).

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: School of Sustainability graduates are prepared for admission into strong graduate and professional schools. They may also assume positions in industry, consultancy, utilities, regulatory agencies, nonprofits, governmental agencies and nongovernmental organizations. Recent interest in sustainability within business and government has created new employment opportunities (e.g. sustainability coordinators, directors and managers). By engaging a breadth of knowledge and experience, and by acquiring the skills to integrate various domains of knowledge, sustainability students prepare themselves for a variety of careers to help find solutions to sustainability challenges.

## Contact Information:

Sustainability, School of
School of Sustainability
http://schoolofsustainability.asu.edu
GIOS 108
schoolofsustainability@asu.edu

## Sustainability, BS (SUSUSTBS)

Campus: TEMPE
Program Description: The B.S. in sustainability introduces students to the concept of sustainability in the context of real-world problems, exploring the interaction of environmental, economic and social systems. Although the program is transdisciplinary, the B.S. in sustainability is best suited to those inclined toward natural sciences, economics or engineering.

Students pursuing a B.S. in sustainability can pursue the following tracks:

- Economics of sustainability.
- Sustainable ecosystems.
- Sustainable energy, materials and technology.

Students will gain a general understanding of sustainability issues at the local, regional and global level. They will be adaptable, capable of both communicating and learning across a number of disciplines, and have a strong orientation toward problem solving.

## Additional Program Fee: N.

## Second Language Requirement: Y .

Minimum math requirement depends on track student selects. MAT 210: Brief Calculus (MA) or
MAT 251: Calculus for Life Sciences (MA) or
MAT 265: Calculus for Engineers (MA) or
MAT 270: Calculus with Analytical Geometry I (MA)

Admission Requirements: The School of Sustainability has higher admission requirements. Applicants must select a second choice for their major on the application. Students who are not admitted to the School of Sustainability and who did not select a second major or are not admissible to the second major choice will be admitted to the exploratory social and behavioral sciences program within University College. Students with more than 45 transfer hours who are not admissible to University College will be contacted to select an appropriate major.

Freshman applicants must meet the following standards:

- Have a minimum high school ABOR GPA of 3.30; AND
- A high school class rank in the top 15 percent of class; OR
- An SAT combined score of 1140 or higher; OR
- An ACT combined score of 25 or higher.
- No high school math competency deficiency.

Transfer students (with 12 or more transfer hours after high school graduation) are required to have a cumulative transfer GPA of 3.30 or higher.

ASU students who would like to change their major to sustainability are required to have a cumulative ASU GPA of 3.30 or higher (based on at least 12 credit hours).

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: School of Sustainability graduates are prepared for admission into strong graduate and professional schools. They may also assume positions in industry, consultancy, utilities, regulatory agencies, nonprofits, governmental agencies and nongovernmental organizations. Recent interest in sustainability within business and government has created new employment opportunities (e.g., sustainability coordinators, directors and managers). By engaging a breadth of knowledge and experience, and by acquiring the skills to integrate various domains of knowledge, sustainability students prepare themselves for a variety of careers to help find solutions to sustainability challenges.

## Contact Information:

Sustainability, School of
School of Sustainability
http://schoolofsustainability.asu.edu
GIOS 108
schoolofsustainability@asu.edu
480-727-6963
Teachers College, Mary Lou Fulton

## Early Childhood Education, BAE (EDECDBAE) <br> Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The B.A.E. in early childhood education program in the Mary Lou Fulton Teachers College is available at all campuses. This program offers students a firm grounding in early childhood teaching and programming with special emphasis on community connectedness, technology integration, administration, policy analysis and advocacy related to young children and their families.
The program and faculty members have earned several national awards on integrating technology into teaching. Every semester students engage in field experiences and internships that align with their academic program. Graduates are recommended for the new Arizona birth-to-grade-three teacher certification and a provisional endorsement to work with English language learners. All graduates desiring to teach in a public school preschool and kindergarten, or the primary grades will have to pass the state certification test in both content area knowledge and professional knowledge.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Changes in Arizona state certification will require all individuals teaching in public schools, early childhood programs and serving children birth through kindergarten to meet new early childhood certification or endorsement requirements by 2012. According to a policy study on the condition of early childhood education in 2005, the demand for early childhood teachers in Arizona is much greater than the current supply. Thus, job opportunities in center-based programs and public school early childhood programs are numerous. Many graduates with a degree in early childhood teaching and leadership hold leadership positions in Head Start, private nonprofit and private for-profit, center-based programs and public school early childhood centers. More than 98 percent of graduates accept employment offers within the first year of completing this program.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Elementary Education, BAE (TEEEDBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in elementary education program in the Mary Lou Fulton Teachers College is available on all campuses. This program offers students a firm grounding in academic content with current research and best practices, accompanied by real-world classroom experiences. Students engage in field experiences and internships that align with their elementary education academic program. The faculty members in the program are experienced in working successfully with firstgeneration college students.
All students graduate from the program with extensive experience in integrating technology into teaching and a provisional endorsement to work with English language learners. Students who complete the B.A.E. in elementary education are recommended for grades one-eight teacher certification. All graduates of this program will have to pass a state certification test in content area knowledge and professional knowledge.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Arizona Western College, Central Arizona College, Cochise College, Coconino Community College, Eastern Arizona College, Maricopa County Community College District, Mohave Community College, Pima Community College, Yavapai College.

Career Opportunities: According to recent research on teacher supply and demand, the demand for well-prepared elementary education teachers is strong. Job opportunities in a fast growing state such as Arizona are numerous. Demand for elementary teachers will continue to be strong. Many graduates with a degree in elementary education work in public elementary schools, charter schools and in private school settings. More than 98 percent of graduates accept employment offers within the first year of completing this program.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Elementary Education (Diversity in Language and Learning), BAE (TEDLLBAE) <br> Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The B.A.E. in elementary education, diversity in language and learning with an English as a second language endorsement, program in the Mary Lou Fulton Teachers College is offered at the Tempe campus and through the Downtown campus. This program is designed to give students a firm grounding in academic content with current research and best practices, accompanied by real-world classroom experiences. Students are engaged in field experiences and internships that align with their English as a second language program. This program requires six credit hours of a foreign language or its equivalent and will enable the student to work with second-language learners.
Students who complete the B.A.E. in elementary education, diversity in languages and literature with an English as a second language endorsement are recommended for grades one-eight teacher certification. All graduates of this program will have to pass the state certification test in content area knowledge and professional knowledge.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: According to recent studies on teacher supply and demand, the demand for well-prepared elementary education teachers is strong. Job opportunities in a fast growing state such as Arizona are numerous. Students seeking endorsements in bilingual and English as a second language will find that demand is great in these areas. Many graduates with a degree in elementary education work in public elementary schools, charter schools and in private school settings. More than 98 percent of graduates receive employment offers within the first year of completing this program.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Biological Sciences), BAE (TEBIOBAE)

Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching
knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in biological sciences is offered in its entirety on ASU's Tempe, West and Polytechnic campuses. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West) as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.
Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Business), BAE (EDBUSBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in business is offered primarily on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. A limited portion of specialization courses are also offered at the Downtown
and West campus. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: N .
First Required Math Course: MAT 210 Brief Calculus.
Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://teach.asu.edu/programs/undergraduate
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Chemistry), BAE (TECHMBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in chemistry is offered in its entirety on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: $N$.
Second Language Requirement: $N$.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Earth \& Space Sciences), BAE (EDESSBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in earth and space sciences is offered in its entirety on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass a state certification test in professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: N .
MAT 210 Brief Calculus or
MAT 270 Calculus with Analytic Geometry
Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Economics), BAE (EDECNBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in economics is offered primarily on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. A limited portion of specialization courses are also offered at the Downtown and West campus. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (English), BAE (TEENGBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in English is offered in its entirety on the Tempe, West and Polytechnic campuses. A portion of specialization courses are also available at the Downtown Campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (French), BAE (EDFREBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in French is offered in its entirety on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that may be available that are part of this curriculum. A limited portion of specialization courses are also offered at the Downtown campus. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

## Additional Program Fee: N.

Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Geography), BAE (EDGCUBAE)

Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field.
Secondary education in geography is offered in it's entirely on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (German), BAE (EDGERBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in German is offered in its entirety on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that may be available that are part of this curriculum. A limited portion of specialization courses are also offered at the Downtown campus. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1

## Secondary Education (History), BAE (TEHISBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in history is offered in its entirety on ASU's Tempe, West and Polytechnic campuses. A portion of specialization courses are also available at the Downtown Phoenix campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

## Additional Program Fee: N.

## Second Language Requirement: N.

First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Japanese), BAE (EDJPNBAE)

Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in Japanese is offered in its entirety on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass a state certification test in professional knowledge. Please consult with an Academic Success Specialist for additional information.

## Additional Program Fee: N.

## Second Language Requirement: N.

First Required Math Course: MAT 142 College Mathematics.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Mathematics), BAE (TEMATBAE)

Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with
the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. Secondary education in mathematics is offered in its entirety on ASU's Tempe and West campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Physical Education), BAE (ECPPEBAE)

Campus: POLY
Program Description: The physical education concentration under the B.A.E. in secondary education prepares future teachers to delivery quality $\mathrm{K}-12$ physical education programs. This program is unique in its practice-oriented focus on intensive field experiences, practical application of current knowledge, a field-tested and widely used curriculum and classroom management model, and an emphasis on current technology. The curriculum directly aligns with Arizona's standards for teachers and the National Association for Sport and Physical Education's beginning teacher standards.

During the first two years of the program, students explore education as a career field and gain experience in local community schools and agencies. During the final two years, students complete content specific teaching methodology courses and intensive field experiences at both the elementary and secondary levels. Course instructors use their experience teaching in a variety of K-12 settings and coaching environments to augment class experiences with many practical applications.
Secondary education in physical education is offered in its entirety on ASU's Polytechnic campus. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information on this major.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 142 College Mathematics.
Admission Requirements: Students will be admitted to the preprofessional status and must complete additional requirements for entrance to the professional status. See department web site for more information.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
SANCA 331
educationadvising@asu.edu
480-727-1103

## Secondary Education (Physics), BAE (EDPHYBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field.

Secondary education in physics is offered entirely on ASU's Tempe campus. Students have the option to take the Professional Teacher Preparation Program courses at any of the four campuses (Downtown Phoenix, Polytechnic, Tempe and West), as well as general studies courses that are part of this curriculum. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: $N$.
First Required Math Course: MAT 270 Calculus w/Analytic Geometry I.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Political Science), BAE (TEPOLBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in secondary education program prepares educators who wish to teach students in seventh through 12th grade. While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the Mary Lou Fulton Teachers College maintains connections with academic departments across the university. Internships are required in the schools, and some courses are taught in the field. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Secondary Education (Spanish), BAE (TESPABAE)

## Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The Department of Secondary Education in the Mary Lou Fulton Teachers College offers a three-semester professional program leading to a B.A.E. in secondary education. In addition, students may complete one of seven secondary specializations at the West or Downtown Phoenix campuses:

- Biological sciences.
- English.
- History.
- Mathematics.
- Natural sciences.
- Social studies.
- Spanish.

While students develop a strong theoretical background, the program focuses on developing the requisite teaching knowledge and abilities to be a successful middle or high school teacher. Students who successfully complete the required course work and student
teaching are recommended for Arizona secondary education certification, grades seven to 12. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

Additional Program Fee: N.
Second Language Requirement: N .
First Required Math Course: MAT 142 College Mathematics.
Career Opportunities: Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

- Art.
- Biological sciences.
- Business.
- Chemistry.
- Dance.
- Earth and space science.
- Economics.
- English.
- French.
- Geography.
- German.
- History.
- Japanese.
- Mathematics.
- Music, choral.
- Music, instrumental.
- Physical education.
- Physics.
- Political Science.
- Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358

## Special Education, BAE (TESPEBAE)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The B.A.E. in special education in the Mary Lou Fulton Teachers College is available at all campuses. Special education for children and adolescents with diverse learning needs is viewed as a service not a place. Our primary goals are to prepare teachers to provide a variety of educational options based on individual needs and to design curriculum based on the whole child in the context of their family, culture, community and learning needs.
Because the general education classroom is a viable placement option for many students with mild and moderate learning and behavior disabilities, teaching special education teachers to collaborate is emphasized throughout the professional preparation sequence. Students receive additional training in using interpersonal communication and problem-solving skills. They also learn adaptive techniques and about assistive technologies that facilitate the successful integration of students with diverse leaning needs in general education classrooms.
This is a dual-certificate program which leads to certification in both special education in mild cross-categorical disabilities and first through eighth grade elementary education. All graduates of this program will have to pass state certification tests in content area knowledge and professional knowledge. Please consult with an Academic Success Specialist for additional information.

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 142 College Mathematics.

Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: National and state studies report the current and projected need for the next five to 10 years will be foremost for special education teachers. Graduates of the B.A.E. in special education program will be eligible to teach kindergarten through grade 12 for the spectrum of mild disabilities (learning disabilities, behavior disabilities and mild mental retardation) in crosscategorical special education classes. In general education classes, graduates serve in resource rooms and self-contained classes as itinerant teachers, consulting teachers and co-teachers. Graduates also have the opportunity to consult with governmental agencies, curriculum publishers and parent organizations.

## Contact Information:

Teachers College, Mary Lou Fulton
Division of Teacher Preparation
http://education.asu.edu/
FAB S210-1
educationadvising@asu.edu
602-543-6358
Technology and Innovation, College of

## Aeronautical Management Technology (Air Transportation Management), BS (TSAMTMBS)

Campus: POLY

Program Description: The air transportation management concentration, under the B.S. in aeronautical management technology, prepares students for air carrier or airport management. The student gains a strong technical background in aircraft structures, reciprocating and turbine engines, aircraft performance and design, management skills, business principles, systems analysis and a variety of course work specific to aircraft flight, airport operations and air transportation systems.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Career Opportunities: A degree in air transportation management prepares graduates for careers as:

- Air carrier manager.
- Air traffic control specialist.
- Airport manager.
- General aviation operations manager.

To facilitate career options, the student selects a focus area in either air carrier management or airport management.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/aviation
SIM
technology@asu.edu
480-727-1021

## Aeronautical Management Technology (Professional Flight), BS (TSAMTFBS)

## Campus: POLY

Program Description: The professional flight concentration, under the B.S. in aeronautical management technology, is for students who are seriously interested in becoming professional airline pilots. Graduates are prepared to assume responsibilities in a wide variety of technically related areas within professional aviation flight operations. The concentration features flight instruction as a curriculum requirement and an airline bridge training program with Mesa Airlines.
The Aviation Accreditation Board International accredits this program and the Federal Aviation Administration (FAA) certifies flight instruction.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: This major has additional admission requirements including Federal Aviation Administration requirements. Students will be admitted to the pre-professional status and then complete additional requirements for admission to the professional program. See http://technology.asu.edu/aviation for more information.

Career Opportunities: The professional flight concentration offers students private pilot, commercial pilot and flight instructor certificates, as well as instrument pilot, instrument instructor and multiengine pilot ratings. With these flight qualifications and the technically based bachelor's degree, the graduate has a wide variety of career opportunities, including flight crew service on commercial and business aircraft.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/aviation
SIM
technology@asu.edu
480-727-1021

## Agribusiness (Agribusiness Science), BS (AGAGBPBS)

## Campus: POLY

Program Description: The B.S. in agribusiness, with a concentration in agribusiness science, is a unique program offering students an opportunity to prepare for a variety of science-based careers in the broad agribusiness sector of the economy. Building upon a foundation of course work in chemistry and biology, students complete a curriculum leading to careers and opportunities for further study. Some students may apply to colleges of veterinary medicine. Others may seek to apply their science knowledge in the human or veterinary pharmaceutical industry or in the food industry focusing on processing, production and food safety.

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Career Opportunities: Doctors of veterinary medicine enjoy a vast spectrum of career opportunities, including private practice, biotechnology research, and positions in federal and state governmental agencies. Food science professionals create, improve and provide for the safety of food products through their work in the food processing industry, universities or the federal government.

## Contact Information:

Technology and Innovation, College of
Morrison School of Agribusiness and Resource Mgmt
http://morrison.asu.edu/
PRLTA 330
morrisonschool@asu.edu
480-727-1585

Program Description: The B.S. in agribusiness with a concentration in global agribusiness is an applied, industry-oriented curriculum. The study of the food and fiber system in the U.S. and around the world is the foundation of this program. This concentration is specifically designed to meet the needs of the students interested in focusing their studies on the business aspects of agriculture in the domestic and global economy. Students learn to analyze firms involved in input and output supply activities, commodity trading, food manufacturing and food distribution.

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Career Opportunities: Agribusiness is a dynamic industry providing employment to about 23 percent of the U.S. labor force. Opportunities exist in management, marketing, finance and technical positions with private agribusiness firms and governmental agencies.

## Contact Information:

Technology and Innovation, College of
Morrison School of Agribusiness and Resource Mgmt
http://morrison.asu.edu/
PRLTA 330
morrisonschool@asu.edu
480-727-1585

## Air Traffic Management, BS (TSATMBS)

Campus: POLY
Program Description: The B.S. in air traffic management provides a technical foundation in air traffic control procedures and operations for students interested in becoming air traffic controllers who ensure safe, orderly and expeditious flow of aircraft traffic both on the ground and in the air. Students gain a strong background in aircraft operations, management skills and business principles through course work specific to air traffic control.

## Additional Program Fee: Y.

Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.

Admission Requirements: This major has additional admission requirements including Federal Aviation Administration requirements. Students who do not have US citizenship status cannot be admitted to the program. Students will be admitted to the pre-professional status and then complete additional requirements for admission to the professional program. See www.poly.asu.edu/aviation for more information.

Career Opportunities: It is estimated that the Federal Aviation Administration (FAA) will hire approximately 15,000 air traffic controllers in the next 10 years. Increases in the volume of air traffic will require more controllers to handle the additional work. New computerized systems will assist controllers by automatically making many of the routine decisions. This will allow controllers to handle more traffic, thus increasing their productivity. Despite the obvious demand for new controllers in the immediate future, competition to get into the FAA-approved training programs is expected to remain intense, as there generally are many more applicants than there are openings. Graduates from this program have an excellent opportunity of being hired as air traffic controllers.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/aviation
SIM
technology@asu.edu
480-727-1021

Program Description: The applied biological sciences concentration, under the B.S. in applied biological sciences, focuses on the application of biological principles to challenges in the life sciences. This concentration is designed for students interested in the life sciences, and the interaction of these sciences with the ecosystem and human society within the ecosystem. Mastery of fundamental biological principles is emphasized through classroom learning and hands-on activities in laboratories. Students also work in the living laboratories of the Sonoran desert, the surrounding ecosystems and the landscape of the greater Phoenix area.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Graduates can pursue entry-level careers in wildlife and restoration ecology, urban horticulture and secondary education. The general program in applied biological sciences prepares graduates to succeed in graduate and professional schools in disciplines such as:

- Animal health.
- Dentistry.
- Ecology.
- Environmental biotechnology.
- Horticulture.
- Medicine.
- Physical therapy.
- Veterinary medicine.
- Wildlife biology.


## Contact Information:

Technology and Innovation, College of
Department of Applied Sciences and Mathematics
http://technology.asu.edu/dasm
SANTN 330
technology@asu.edu
480-727-1874

## Applied Biological Sciences (Secondary Education in Biology), BS (TSABSSBS)

Campus: POLY
Program Description: The secondary education in biology concentration of the B.S. in applied biological sciences qualifies students for state of Arizona certification in secondary biology education. Students in this program will have advisors in both the College of Technology and Innovation and the Mary Lou Fulton Teachers College.

Additional Program Fee: $N$.
Second Language Requirement: $N$.
First Required Math Course: MAT 210 Brief Calculus.
Career Opportunities: Graduates can pursue numerous entry-level careers in biology. Specific career fields include secondary education, wildlife and restoration ecology and urban horticulture. Employment opportunities exist in both private and public sectors. The general program in applied biological sciences also prepares graduates to succeed in graduate or professional schools in disciplines such as:

- Animal health.
- Dentistry.
- Ecology.
- Environmental biotechnology.
- Horticulture.
- Medicine.
- Physical therapy.
- Wildlife biology.


## Contact Information:

Technology and Innovation, College of
Department of Applied Sciences and Mathematics
http://technology.asu.edu/dasm
SANTN 330
technology@asu.edu
480-727-1874

## Applied Biological Sciences (Urban Horticulture), BS (TSABSUBS)

Campus: POLY

Program Description: The urban horticulture concentration, under the B.S. in applied biological sciences degree, emphasizes the relationship of plants and people in urban and suburban environments, with major emphasis given to the sustainability of these environments. Set in a unique southwestern desert location, the program teaches students how to practice urban horticulture principles and develop skills that help to create aesthetically pleasing urban environments. This approach is coupled with an appreciation of environmental conservation and stewardship.

Additional Program Fee: $N$.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Career Opportunities: Graduates can pursue numerous entry-level careers in biology. Specific career fields include secondary education, wildlife and restoration ecology and urban horticulture. Employment opportunities exist in both private and public sectors. The general program in applied biological sciences also prepares graduates to succeed in graduate or professional schools in disciplines such as:

- Animal health.
- Dentistry.
- Ecology.
- Environmental biotechnology.
- Horticulture.
- Medicine.
- Physical therapy.
- Wildlife biology.


## Contact Information:

Technology and Innovation, College of
Department of Applied Sciences and Mathematics
http://technology.asu.edu/dasm
SANTN 330
technology@asu.edu
480-727-1874

## Applied Biological Sciences (Wildlife \& Restoration Ecology), BS (TSABSRBS)

## Campus: POLY

Program Description: The wildlife and restoration ecology concentration, under the B.S. in applied biological sciences degree, focuses on the application of ecological principles to the management of wildlife and the restoration of ecosystems. The
concentration examines the management of wildlife species and their habitat and emphasizes the reconstruction of degraded ecosystems, to improve ecological structure and function and meet societal needs for sustainable and functional ecosystems.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.

Career Opportunities: Graduates can pursue numerous entry-level careers in biology. Specific career fields include secondary education, wildlife and restoration ecology and urban horticulture. Employment opportunities exist in both private and public sectors. The general program in applied biological sciences also prepares graduates to succeed in graduate or professional schools in disciplines such as:

- Animal health.
- Dentistry.
- Ecology.
- Environmental biotechnology.
- Horticulture.
- Medicine.
- Physical therapy.
- Wildlife biology.


## Contact Information:

Technology and Innovation, College of
Department of Applied Sciences and Mathematics
http://technology.asu.edu/dasm
SANTN 330
technology@asu.edu
480-727-1874

## Applied Computer Science, BS (TSACSBS)

## Campus: POLY

Program Description: The B.S in applied computer science provides students with an education that targets the computing profession. Students will learn to use mathematics, science and economics, along with technological knowledge and skill in the application of programming languages and software processes, to design, analyze, implement and test software systems and applications. The program is problem and project based, utilizing the languages, tools and methods of computing best practices.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Career Opportunities: Graduates find opportunities as members of an engineering team in software applications areas such as the Web, databases, limited devices (cell phones), networks and security. The current demand for software and computer hardware personnel is high, and the starting salaries for these employees are typically well above the average.

## Contact Information:

Technology and Innovation, College of
Department of Engineering
http://technology.asu.edu/engineering/
SANTN 330
technology@asu.edu
480-727-2727

## Applied Psychology, BS (ECPSYBS)

## Campus: POLY

Program Description: What do the design of the latest technological devices, training of elite athletes, and exploring the impact of texting on driving have in common? All of these problems are tackled by applied psychologists. A broad range of professions need experts in human performance to work on problems that involve design, training and assessment. If you are interested in human perception, cognition, innovation or group processes, then applied psychology is for you.
Applied psychology offers a traditional psychology core preparation, leading to graduate school and/or to applications in human factors with emphasis on human-computer interaction, aviation and manufacturing. The rigorous program provides strong preparation for further graduate study in psychology.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N .
First Required Math Course: MAT 170 Precalculus.

Career Opportunities: Most careers in psychology require a master's or a doctoral degree, but with an emphasis in human factors, an undergraduate degree can lead to many lucrative employment opportunities. We routinely place our top undergraduate students in internships in government laboratories or at leading companies in the fields of technology, training and transportation, and many of these opportunities turn into careers. Our emphasis on usability design and applied experimental and statistical methodologies provide students with a skill set that is highly sought by today's leading businesses.

## Contact Information:

Technology and Innovation, College of
Faculty of Applied Psychology
http://technology.asu.edu/appliedpsych
SANTN 330
technology@asu.edu
480-727-1874

## Applied Science, BAS (TSAPSBAS)

Campus: POLY

Program Description: The B.A.S. program is a flexible degree plan designed specifically for students who hold an Associate of Applied Science (A.A.S.) from an accredited community college. This major combines the technical experience gained in the student's associate degree program with a broader educational experience in management, leadership, critical thinking and communications. Students in the B.A.S. program select one of eight offered concentrations:

- Aviation management technology.
- Electronic and energy systems.
- Emergency management.
- Graphic information technology.
- Internet and Web development.
- Manufacturing technology and management.
- Operations management technology.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: $N$.
Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (AAS) degree. This program is not available for freshmen.

Career Opportunities: The wide range of concentrations provides B.A.S. program graduates diverse career opportunities. B.A.S. program course work gives the graduate greater skills to be successful as a professional working in a technical area. B.A.S. graduates have the ability to supervise and manage people in highly specialized technical and service industry positions.

## Contact Information:

Technology and Innovation, College of
Dean, College of Technology and Innovation
http://technology.asu.edu
SANTN 330
technology@asu.edu
480-727-1874

## Applied Science (Aviation Management Technology), BAS (TSAMTABAS)

Campus: POLY

Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institution.

The concentration in aviation management technology is for students who have received training and education in some aspect of the air transportation industry (other than aviation maintenance), such as flight certificates and ratings as part of their A.A.S. degree. Students learn management practices that prepare them for advanced positions in the aviation management field.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: The concentration in aviation management technology is for students who have received training and education in some aspect of the air transportation industry (other than aviation maintenance), such as flight certificates and ratings as part of their A.A.S. degree. Students receive an orientation in management practices that prepares them for advanced positions in the aviation management field.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/aviation
SANTN 330
technology@asu.edu
480-727-1874

## Applied Science (Electronic Energy Systems), BAS (TSEESBAS) <br> Campus: POLY

Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institution.

The electronic and energy systems concentration serves students with an electronics background via three paths or emphasis areas - alternative energy, electronic systems and integrated electronic systems (focused on the semiconductor industry).

The alternative energy technologies emphasis area explores various alternative energy resources. At the heart of the program is the solar-hydrogen cycle, a renewable energy scenario including the production of electricity from solar energy, and utilization of that
electricity to split water into its elemental parts. This program provides hands-on laboratory experience on energy conversion and storage technologies, including photovoltaics, fuel cells, batteries, electrolyzers and supercapacitors.
The electronic systems emphasis area allows students to continue to develop a knowledge of electrical/electronic fundamentals with an applications perspective and a focus on general topics of microcontrollers and advanced digital controllers and their use in industry.
The integrated electronic systems emphasis area covers the processes and technology used to develop, design, manufacture and exploit integrated electronic functions on silicon, in packages and on boards. The program provides hands-on laboratory experience in integrated circuit device fabrication and manufacturing in a setting that emulates industry.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: Graduates with the alternative energy emphasis area are able to work in a number of different companies involved in alternative energy. These companies may be traditional energy production companies expanding into new production technologies, or start-up companies involved in solar energy or fuel cells.
Graduates with the electronic systems emphasis area are able to work as members of engineering teams in applied design, product development, manufacturing, production or operations. They may also be employed in technical services capacities, including field engineering, marketing or sales.
Graduates with the integrated electronic systems emphasis area work in integrated circuit processing, testing, field applications and as system integrators.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/
SANTN 330
technology@asu.edu
480-727-1874

## Applied Science (Emergency Management), BAS (TSIMCEBAS)

Campus: POLY
Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institution.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: The concentration in emergency management opens the door to a challenging career as a professional emergency manager. The advancement of technology has created the potential for more devastating disasters than ever before. As a result, there is an increasing demand for emergency managers who have a solid foundation in scientific and technical disciplines as well as management skills.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/etm
SANTN 330
technology@asu.edu
480-727-1874

## Applied Science (Graphic Information Technology), BAS (TSGITBAS)

## Campus: POLY

Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned a relevant A.A.S. from a regionally accredited institution.
The concentration in graphic information technology prepares graduates in the cross-media graphic industry that includes:

- 3-D modeling.
- Animation.
- Commercial digital photography.
- Gaming.
- Internet and Web development.
- Multimedia.
- Printing and digital publishing.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: $N$.

Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: Graduates of the program, which combines technical course work with management content, are prepared to assume supervisory positions in industry such as:

- Web developer.
- Art director.
- Animation specialist.
- Commercial photographer.
- Customer service representative.
- Graphic designer.
- Plant manager.
- Production manager.
- Quality assurance manager.

The technical graphics option prepares graduates for positions in industries implementing technical and engineering graphics in computer aided design and computer integrated manufacturing.
The website design option prepares graduates for careers in the ever-expanding arena of website design and publishing. The digital publishing option prepares graduates for lead technical and entry-level management positions in the printing and publishing industry.
The digital media management option prepares graduates for technical positions in industries implementing, planning, and producing interactive communications.

## Contact Information:

Technology and Innovation, College of

## Applied Science (Internet \& Web Development), BAS (TSIWDBAS)

Campus: ONLNE, POLY

Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned a relevant A.A.S. from a regionally accredited institution.
The concentration in Internet and Web development focuses on the development of internet sites, including security, usability, ecommerce, server and client side issues, and cross-media graphic applications. All courses for this program are available online.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: This degree prepares graduates for careers in the ever-expanding arena of website design and publishing.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/git
SANTN 330
technology@asu.edu
480-727-1874

## Applied Science (Manufacturing Technology \& Management), BAS (TSMETFBAS)

Campus: POLY

Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institution.

The manufacturing technology and management concentration provides a broad understanding of the complex world of manufacturing.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: $N$.
Second Language Requirement: N .

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: Typically, students who graduate with this B.A.S. concentration work in manufacturing, production or operations.

Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
SANTN 330
technology@asu.edu
480-727-1784

## Applied Science (Operations Management), BAS (TSIMCOBAS)

Campus: ONLNE, POLY
Program Description: The B.A.S. program is a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institution.

The concentration in operations management technology provides the tools needed for success as a manager. An effective manager is someone who:

- Effectively utilizes the resources available to create quality products and/or services and accomplishes unit goals.
- Hires qualified workers that can do the job or can be trained/educated to perform the job.
- Motivates and develops the workforce.
- Organizes work.
- Understands the work environment and creates a safe and healthful work environment.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N. <br> Second Language Requirement: N.

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: The B.A.S. in operations management technology prepares undergraduate students for supervisory and management functions in industry, manufacturing, public service and other service organizations.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/
SANTN 330
technology@asu.edu
480-727-1874

## Applied Science (Software \& Computing Systems), BAS (TSCSTBAS)

Campus: POLY
Program Description: The B.A.S. program with a concentration in software and computing systems is a 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institution. Students are expected to have an A.A.S. with course work in object-oriented programming, data structures and microcomputer organization/assembly language programming to enroll in upper-division major courses. Upper division course work and laboratories are offered in two emphasis areas, culminating in a capstone senior project.
The computer systems administration area will broaden and deepen knowledge in networked computer systems. Graduates will be prepared to specify, install, maintain and administer various computer-networking systems.
The cyber security area will broaden and deepen knowledge in securing systems, intrusion detection and various other aspects of information assurance and cyber forensics. Graduates will understand the various threats to computer-networking systems and best practices for securing systems from these threats.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N. <br> Second Language Requirement: N .

Admission Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree from a regionally accredited institution. Not available for freshmen.

Career Opportunities: The B.A.S. exposes students to advanced concepts and critical thinking skills that prepare them for expanded career opportunities and professional advancement. Graduates from this concentration are prepared to work in systems administration and cybersecurity for internet and telecommunication companies, a wide variety of information technology providers and information technology centers within most midsize to large corporations. Demand for graduates with these skills continues to rise even while the job market in many other areas is stagnant or declining.

## Contact Information:

Technology and Innovation, College of
Department of Engineering
http://technology.asu.edu/engineering
SANTAN 330
technology@asu.edu
480-727-1874

## Computer Systems (Computer Hardware Technology), BS (TSCSTHBS)

Campus: POLY

Program Description: The computer hardware technology concentration, under the B.S. in computer systems, offers students the opportunity to develop knowledge and skills in the broad area of digital systems, computer hardware and computer network applications. Current computing industry needs drive the program's curriculum. The computer systems program uses mathematics, science and economics along with technological knowledge and skill in the application of programming languages, computer hardware, operating systems and networking to design, analyze, implement and test systems that integrate hardware and low-level software. The program is problem-based with exercises utilizing the languages, tools and methods of computing best practices.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.

Career Opportunities: Graduates find employment opportunities as members of engineering teams working in computer hardware technology, systems development and system analysis. The current demand for highly trained software and computer hardware personnel is high, and the starting salaries for these employees are typically well above the average.

## Contact Information:

Technology and Innovation, College of
Department of Engineering
http://technology.asu.edu/engineering/
SANTN 330
technology@asu.edu
480-727-1874

## Computer Systems (Embedded Systems Technology), BS (TSCSTMBS)

Campus: POLY

Program Description: The embedded systems technology concentration, under the B.S. in computer systems, provides students with an opportunity to develop knowledge and skills in the broad area of digital systems, computer hardware and computer network applications. Current computing industry needs drive the program's curriculum. The computer systems program uses mathematics, science and economics along with technological knowledge and skill in the application of programming languages, computer hardware, operating systems and networking to design, analyze, implement and test systems that integrate hardware and low-level software. The program is problem-based with exercises utilizing the languages, tools and methods of computing best practices.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 243 Discrete Math Structures.

Career Opportunities: Graduates find employment opportunities as members of engineering teams working in computer embedded systems technology, systems development and system analysis. The current demand for highly trained software and computer hardware personnel is high, and the starting salaries for these employees are typically well above the average.

## Contact Information:

Technology and Innovation, College of
Department of Engineering
http://technology.asu.edu/engineering/
SANTN 330
technology@asu.edu
480-727-1874

## Electronics Engineering Technology (Alternative Energy Technologies), BS (TSEETABS) Campus: POLY

Program Description: Students in this program are people who enjoy the practice of engineering technology. As graduates, they often work as members of design and development teams, cooperating with other people both in and outside their company. The emphasis in this program is placed on understanding how engineering technology principles are applied in practice. The electronics engineering technology program has a practice-based approach and uses both laboratories and industry projects to make electronics engineering real to students. All the faculty teaching in the program have industry experience.
The goal of the curriculum is to serve the needs of students interested in the applied aspects of electronics engineering at the baccalaureate level. Major components of the program include:

- Design.
- Electronics-related technical courses.
- Engineering science.
- General education.
- Science and mathematics.

The first two years of curriculum include fundamental courses in English, chemistry, math and engineering science (e.g., circuits, devices, and digital electronics).Students customize their degree with a specialized concentration.
The alternative energy technologies concentration, under the B.S. in electronics engineering technology, explores the demands of energy resources in the new economy. This program strives to educate individuals in the use of energy sources such as solar, wind, ocean, geothermal and biomass. At the heart of the program is the concept of the solar-hydrogen cycle, an energy scenario including production of electricity from solar energy, and utilization of that electricity to split water into its elemental parts. This program provides hands-on laboratory experience on several energy conversion and storage technologies including photovoltaics, fuel cells, batteries, electrolyzers and supercapacitors. Thus, graduates are able to face the challenge of helping to improve the human quality of life, putting new innovative products into the marketplace and providing society with technological leadership.
This program is accredited by the Technology Accreditation Council (TAC) of ABET.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Career Opportunities: Graduates have an understanding of energy and power technology, the contribution of materials and components to the performance of electronic systems and how to exploit the power of integrated electronics to enhance productivity and technology solutions. The alternative energy technologies concentration is aimed at preparing graduates for careers in alternative energy as related to electric power conditioning, control systems, electronics and instrumentation. The specific positions might include:

- Application interface.
- Environmental and reliability analysis.
- Policy analysis.
- Process control.
- System design.
- Technology analysis.


## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
TECH 101
technology@asu.edu
480-727-1584

## Electronics Engineering Technology (Electronic Systems), BS (TSEETEBS)

Campus: POLY
Program Description: Students in this program are people who enjoy the practice of engineering technology. As graduates, they often work as members of design and development teams, cooperating with other people both in and outside their company. The emphasis in this program is placed on understanding how engineering technology principles are applied in practice. The electronics engineering technology program has a practice-based approach and uses both laboratories and industry projects to make electronics engineering real to students. All the faculty teaching in the program have industry experience.
The goal of the curriculum is to serve the needs of students interested in the applied aspects of electronics engineering at the baccalaureate level. Major components of the program include:

- Design.
- Electronics-related technical courses.
- Engineering science.
- General education.
- Science and mathematics.

The first two years of curriculum include fundamental courses in English, chemistry, math and engineering science (e.g., circuits, devices, and digital electronics). Students customize their degree with a specialized concentration.
The field of electronics engineering technology applies mathematics, science and economics, along with state-of-the-art electronics techniques, materials and devices to solve technological problems and to produce useful products. The concentration in electronic systems, under the B.S. in electronics engineering technology, allows students to develop a broad-based knowledge of electrical/electronic fundamentals with an applications perspective.
This program is accredited by the Technology Accreditation Commission (TAC) of ABET.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of

Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 265 Calculus for Engineers I.
Career Opportunities: Graduates have an understanding of energy and power technology, the contribution of materials and components to the performance of electronic systems and how to exploit the power of integrated electronics to enhance productivity and technology solutions. The electronic systems concentration prepares persons for careers in control, electronics, instrumentation and power systems applications. Engineering technologists typically work as members of engineering teams in applied design, product development, manufacturing, production or operations. They may also be employed in technical services capacities, including field engineering, marketing or sales.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
TECH 101
technology@asu.edu
480-727-1584

## Electronics Engineering Technology (Integrated Electronic Systems), BS (TSEETINBS) Campus: POLY

Program Description: Students in this program are people who enjoy the practice of engineering technology. As graduates, they often work as members of design and development teams, cooperating with other people both in and outside their company. The emphasis in this program is placed on understanding how engineering technology principles are applied in practice. The electronics engineering technology program has a practice-based approach and uses both laboratories and industry projects to make electronics engineering real to students. All the faculty teaching in the program have industry experience.
The goal of the curriculum is to serve the needs of students interested in the applied aspects of electronics engineering at the baccalaureate level. Major components of the program include:

- Design.
- Electronics-related technical courses.
- Engineering science.
- General education.
- Science and mathematics.

The first two years of curriculum include fundamental courses in English, chemistry, math and engineering science (e.g., circuits, devices, and digital electronics). Students customize their degree with a specialized concentration.
The integrated electronic systems concentration, under the B.S. in electronics engineering technology, explores the processes and technology used to develop, design, manufacture and exploit integrated electronic functions on silicon, in packages and on boards. The program provides hands-on laboratory experience in integrated circuit device fabrication and manufacturing in a setting that emulates industry.
This program is accredited by the Technology Accreditation Council (TAC) of ABET.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Career Opportunities: Graduates have an understanding of energy and power technology, the contribution of materials and components to the performance of electronic systems and how to exploit the power of integrated electronics to enhance
productivity and technology solutions. Upon completion of this concentration, graduates are prepared for careers in microelectronics industry. Graduates secure positions in integrated circuit processing, testing, field applications, system integrators and as members of diverse scientific engineering teams.

## Contact Information:

Technology and Innovation, College of Department of Engineering Technology
http://technology.asu.edu/engrtech
TECH 101
technology@asu.edu
480-727-1584

## Engineering, BSE (TSEGRBSE)

Campus: POLY

Program Description: The emerging problems that engineers must solve require a broad set of interdisciplinary skills. Engineers are challenged with:

- Designing innovative products.
- Improving the quality of life for humankind.
- Preparing for potential catastrophes.
- Providing society with technological leadership.

The B.S.E. is a unique program designed to produce creative engineers who can meet these challenges. The structure of this degree program is flexible and responsive to emerging engineering fields. The program integrates a broad knowledge base with study in multiple focus areas, providing both breadth and depth. This provides a greater flexibility in curricular and career pathways allowing for multidisciplinary experiences and novel combinations of expertise. It approaches this task by a heavy reliance on projects in which student teams design and build devices that solve realistic problems. Students in the program design and implement an engineering project every semester.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: Y .

Second Language Requirement: $N$.
First Required Math Course: MAT 265 Calculus for Engineers I.
Transfer Agreements: ASU has partnered with the following institutions to enable you to do a seamless transfer: Maricopa County Community College District.

Career Opportunities: Engineers normally work as a member of a team that is designing, manufacturing and delivering technological objects and services. These teams are often multidisciplinary and employers frequently seek specific technical skills as opposed to a specific type of engineering degree. While large corporations and governments employ many engineers, others work in small companies or start companies of their own.

## Contact Information:

Technology and Innovation, College of
Department of Engineering
http://technology.asu.edu/engineering/
SANTN 330
technology@asu.edu
480-727-1874

## Environmental Technology Management, BS (TSETMBS)

Campus: POLY

Program Description: Environmental technology management is designed to provide graduates with the critical scientific, technical and management skills needed to solve the environmental challenges faced by industry and by society in today's highly regulated and competitive business climate. The B.S. in environmental technology management curriculum includes courses in biology, chemistry, physics, calculus, computer science and statistics. The core of course work includes courses in:

- Emergency management.
- Environmental chemistry.
- Environmental law.
- International environmental management.
- Occupational hygiene.
- Technologies for control of air pollution, water treatment and hazardous waste remediation.

In addition to the technical course, students take courses in technical communications and project management.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Career Opportunities: Graduates are prepared to be environmental managers in an industrial setting, to work in an environmental regulatory agency or to work for an environmental engineering firm. Industry and government entities value environmental technology management graduates because they have a practical and solid understanding of not only the scientific and technical aspects of controlling environmental pollution, but also the economic, political and legal problems facing managers in today's business climate.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/etm
SANTN 330
technology@asu.edu
480-727-1781

## Food Industry Management, BS (BAFIMBS)

Campus: POLY
Program Description: Students will combine core courses in other business disciplines (finance, marketing, management, accounting, supply chain management and economics) with upper division courses specific to the food industry. Students will select from courses in:

- Environmental management and sustainability.
- Food industry sales and management.
- Food marketing strategy.
- Food supply networks.
- Food retailing.
- Futures and options markets.
- Innovation and food product development.
- Insurance.
- Pricing and promotion strategy in food markets.
- Retail information analysis.
- Risk management.

Each of these courses addresses a different issue in which fundamental concepts, theoretical approaches and analytical methods and industry practice are unique to the food industry so cannot be obtained in a traditional business degree. There are no
comparable programs in the U.S. Southwest, but peer and aspirational peer institutions to ASU offer similar programs and report excellent placement rates and graduating salaries.

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 210 Brief Calculus.
Career Opportunities: The B.S. in food industry management prepares students for business careers in the food industry, which is defined as the group of firms and organizations that are involved with manufacturing, marketing and distributing food beyond the farm to retail stores, restaurants and institutions such as schools and hospitals. Employing one in six people nationwide and 100,000 in Arizona alone, there is a growing demand for professional management in an industry that is becoming increasingly competitive, sophisticated and global.Potential careers for B.S. food industry management graduates in these firms include, but are not limited to:

- Brand manager for a food manufacturing firm.
- Commodities trader for an investment bank or hedge fund.
- District manager for a food retailer.
- Loan officer for a bank with a food-industry portfolio or a host of other highly paid occupations.


## Contact Information:

Technology and Innovation, College of
Morrison School of Agribusiness and Resource Mgmt
http://morrison.asu.edu/msma/
PRLTA
morrisonschool@asu.edu
480-727-1055

## Graphic Information Technology, BS (TSGITBS)

## Campus: POLY

Program Description: The cross-media nature of the graphic information industry requires tomorrow's graduates to understand the full spectrum of graphic technology, reproduction processes and current business practices. The B.S. in graphic information technology degree program prepares graduates for a seamless career as a graphic technologist encompassing web development and internet technologies, printing and digital publishing, and commercial and technical imaging. This is an intensive program of study emphasizing theory and hands-on laboratory practice. Students develop the following skills:

- Web development and interactive technologies.
- Commercial and technical photography.
- Gaming and simulation technologies.
- Computer drawing and illustration.
- Technical document design.
- E-commerce practices.
- Higher-level graphic programming languages.
- Multimedia and 3-D modeling.
- Premedia, digital publishing, and print technologies.
- Project management.
- Quality assurance.

The National Association of Industrial Technology professionally accredits the graphic information technology program.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: N.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Career Opportunities: Graphic information technology prepares graduates for technical and management positions in the diverse graphic communication and information technology industries, such as:

- Internet and web development.
- Commercial and technical imaging.
- Premedia, digital printing and publishing.
- Planning and evaluation of print, Internet, multimedia and computer-based communications.
- Management of graphic information assets.
- Quality assurance of graphic products.
- Technical/digital media production.


## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/git
SANTN 330
technology@asu.edu
480-727-1874

## Manufacturing Engineering Technology, BS (TSMETBS)

Campus: POLY

Program Description: Students in this program are people who like to make things, especially making them better, faster and at a lower cost. They are "hands-on" people who also want to be a part of the design process and they enjoy working with people as part of a team or as its leader.
The manufacturing engineering technology program educational approach focuses on producing a work-ready graduate by incorporating knowledge practicing manufacturing engineers use in their work in industry. This is accomplished by students via the use of equipment typical of that found in industry. All faculty in the program have industry experience.
Major components of the program include:

- Design.
- Engineering science.
- General education.
- Manufacturing-related technical courses.
- Mathematics.
- Physics.

The first two years of curriculum include:

- Chemistry.
- English.
- Manufacturing and materials.
- Math.
- Technical science (e.g., statics).

The manufacturing engineering technology program has an approach that uses both laboratories and industry projects to make manufacturing real to students.
Teamwork is emphasized across the curriculum. Industry emphasizes the importance of working (and solving technical problems) as a team. Student groups are used in first year classes and continue through the senior year. Senior projects extend from the planning stage to manufacturing and final assembly. These projects are typically from industry and provide students an opportunity to work on real manufacturing and design problems.
This program is accredited by the Technology Accreditation Commission (TAC) of ABET.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Career Opportunities: Graduates from Arizona State University's manufacturing engineering technology program apply their professional skills in companies across the United States. Typical job responsibilities include acting as a liaison between design engineering and the manufacturing operation or being deeply involved in manufacturing process development. Career employment opportunities include:

- Design and development.
- Direct manufacturing support.
- Management.
- Quality control and assurance.
- Sales.

Companies large and small, in this region and outside, provide a wide range of opportunities for graduates. Due to their strong, practical engineering skill set, graduates are very valuable in small companies or new start-up companies. Our graduates are well placed and command top salaries in their engineering careers.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
SIM 295
technology@asu.edu
480-727-1584

## Manufacturing Engineering Technology (Mechanical), BS (TSMETMBS)

Campus: POLY

Program Description: Students in this program are people who like to make things, especially making them better, faster and at a lower cost. They are "hands-on" people who also want to be a part of the design process and they enjoy working with people as part of a team or as its leader.
The manufacturing engineering technology program's educational approach focuses on producing a work-ready graduate by incorporating knowledge practicing manufacturing engineers use in their work in industry. This is accomplished by students learning by doing via the use of equipment typical of that found in industry. All faculty in the program have industry experience.
Major components of the program include:

- Design.
- Engineering science.
- General education.
- Manufacturing-related technical courses.
- Mathematics.
- Physics.

The first two years of curriculum include:

- Chemistry.
- English.
- Manufacturing and materials.
- Math.
- Technical science (e.g., statics).

The manufacturing engineering technology program has a practice-based approach and uses both laboratories and industry projects to make manufacturing real to students.
Teamwork is emphasized across the curriculum. Industry emphasizes the importance of working (and solving technical problems) as a team. Student groups are used in first year classes and continue through the senior year. Senior projects extend from the planning
stage to manufacturing and final assembly. These projects are typically from industry and provide students an opportunity to work on real manufacturing and design problems.
Students can customize manufacturing engineering technology degree with a specialized mechanical concentration. The mechanical engineering technology concentration offers manufacturing students an emphasis in mechanics and design.
This program is accredited by the Technology Accreditation Commission (TAC) of ABET.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: Y.
Second Language Requirement: $N$.
First Required Math Course: MAT 170 Precalculus.
Career Opportunities: Graduates from Arizona State University's manufacturing engineering technology program apply their professional skills in companies across the United States. Typical job responsibilities include acting as a liaison between design engineering and the manufacturing operation or being deeply involved in manufacturing process development.
Graduates often achieve employment as manufacturing engineers. The mechanical concentration enables students to also work in the design field where interfacing with manufacturing operations is important.
Career employment opportunities include:

- Design and development.
- Direct manufacturing support.
- Management.
- Quality control and assurance.
- Sales.

Companies large and small, in this region and outside, provide a wide range of opportunities for graduates. Due to their strong, practical engineering skill set, graduates are very valuable in small companies or new start-up companies. Our graduates are well placed and command top salaries in their engineering careers.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
SIM 295
technology@asu.edu
480-727-1584

## Mechanical Engineering Technology, BS (TSMECBS)

Campus: POLY

Program Description: Students in this program are people who enjoy the practice of engineering technology. The emphasis in the program is placed on understanding how engineering principles are applied in practice. Graduates have an understanding of:

- The behavior of fluids.
- The design of machines and components.
- Energy and power technology.
- Engineering measurements.
- The selection of machine components.

The mechanical engineering technology program has a practice-based approach and uses both laboratories and industry projects to make mechanical engineering real to students. All faculty teaching in the program have industry experience.
The goal of the curriculum is to serve the needs of students interested in the applied aspects of mechanical engineering, including aircraft and their systems, at the baccalaureate level. Major components of the program include:

- Basic science and mathematics.
- Design.
- Engineering science.
- General education.
- Mechanical-related technical courses.

The first two years of curriculum include fundamental courses in:

- Chemistry.
- Engineering science (e.g., statics and mechanics' of materials).
- English.
- Manufacturing processes.
- Materials.
- Math.

This program is accredited by the Technology Accreditation Council (TAC) of ABET.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.
Career Opportunities: As graduates, they often work as members of design and development teams, cooperating with other people both in and outside of their company. The B.S. in mechanical engineering technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement, and improve products, machinery, and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
SIM 295
technology@asu.edu
480-727-1584

## Mechanical Engineering Technology (Aeronautical Engineering Technology), BS (TSMECEBS)

Campus: POLY

Program Description: Students in this program are people who enjoy the practice of engineering technology. The emphasis in the program is placed on understanding how engineering principles are applied in practice. Graduates have an understanding of:

- The behavior of fluids.
- The design of machines and components.
- Energy and power technology.
- Engineering measurements.
- The selection of machine components.

The mechanical engineering technology program has a practice-based approach and uses both laboratories and industry projects to make mechanical engineering real to students. All faculty teaching in the program have industry experience.
The goal of the curriculum is to serve the needs of students interested in the applied aspects of mechanical engineering, including aircraft and their systems, at the baccalaureate level. Major components of the program include:

- Basic science and mathematics.
- Design.
- Engineering science.
- General education.
- Mechanical-related technical courses.

The first two years of curriculum include fundamental courses in:

- Chemistry.
- Engineering science (e.g., statics and mechanics' of materials).
- English.
- Manufacturing processes.
- Materials.
- Math.

The aeronautical concentration provides a specialization in aircraft. Students take classes in aircraft design, structures and aerodynamics.
This program is accredited by the Technology Accreditation Council (TAC) of ABET.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: Y.
Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Career Opportunities: As graduates, they often work as members of design and development teams, cooperating with other people both in and outside of their company. The B.S. in mechanical engineering technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement and improve products, machinery and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
SIM 295
technology@asu.edu
480-727-1584

## Mechanical Engineering Technology (Automation Engineering Technology), BS (TSMECUBS)

 Campus: POLYProgram Description: The emphasis in the program is placed on understanding how engineering principles are applied in practice. Graduates have an understanding of:

- The behavior of fluids.
- The design of machines and components.
- Energy and power technology.
- Engineering measurements.
- The selection of machine components.

The mechanical engineering technology program has a practice-based approach and uses both laboratories and industry projects to make mechanical engineering real to students. All faculty teaching in the program have industry experience.
The goal of the curriculum is to serve the needs of students interested in the applied aspects of mechanical engineering, including aircraft and their systems, at the baccalaureate level. Major components of the program include:

- Basic science and mathematics.
- Design.
- Engineering science.
- General education.
- Mechanical-related technical courses.

The first two years of curriculum include fundamental courses in:

- Chemistry.
- Engineering science (e.g., statics and mechanics of materials).
- English.
- Manufacturing processes.
- Materials.
- Math.

The automation concentration provides a specialization in machine and process automation. Automated assembly and testing are major components of most modern mechanical systems and manufacturing operations.
This program is accredited by the Technology Accreditation Council (TAC) of ABET.
This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: Y.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Career Opportunities: As graduates, they often work as members of design and development teams, cooperating with other people both in and outside of their company. The B.S. in mechanical engineering technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement, and improve products, machinery, and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
SIM 295
technology@asu.edu
480-727-1584

## Mechanical Engineering Technology (Automotive), BS (TSMECTBS) <br> Campus: POLY

Program Description: Students in this program are people who enjoy the practice of engineering technology. The emphasis in the program is placed on understanding how engineering principles are applied in practice. Graduates have an understanding of:

- The behavior of fluids.
- The design of machines and components.
- Energy and power technology.
- Engineering measurements.
- The selection of machine components.

The mechanical engineering technology program has a practice-based approach and uses both laboratories and industry projects to make mechanical engineering real to students. All faculty teaching in the program have industry experience.

The goal of the curriculum is to serve the needs of students interested in the applied aspects of mechanical engineering, including aircraft and their systems, at the baccalaureate level. Major components of the program include:

- Basic science and mathematics.
- Design.
- Engineering science.
- General education.
- Mechanical-related technical courses.

The first two years of curriculum include fundamental courses in:

- Chemistry.
- Engineering science (e.g., statics and mechanics of materials).
- English.
- Manufacturing processes.
- Materials.
- Math.

The automotive concentration provides a specialization in vehicle design. A novel concentration course configuration is based on the functional structure of an automotive company and emphasizes system integration.
This program is accredited by the Technology Accreditation Council (TAC) of ABET.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

Additional Program Fee: Y.
Second Language Requirement: N .
First Required Math Course: MAT 170 Precalculus.
Career Opportunities: As graduates, they often work as members of design and development teams, cooperating with other people both in and outside of their company. The B.S. in mechanical engineering technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement, and improve products, machinery, and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

## Contact Information:

Technology and Innovation, College of
Department of Engineering Technology
http://technology.asu.edu/engrtech
SIM 295
technology@asu.edu
480-727-1584

## Software Engineering, BS (TSSERBS)

## Campus: POLY

Program Description: The program blends engineering, computing, project leadership and technology education. Software systems are complex, often including in excess of a million lines of code. Graduates of the B.S. in software engineering will possess knowledge and skills of a defined engineering approach to complex systems analysis, planning, design and construction. The program is a unique project-driven curriculum, establishing a new model for software engineering education. The program is built around the concepts of engaged learning, discovery-based education and learn-by-doing. Students complete projects in every semester of the program to provide emphasis in communication, team-work, communication, critical thinking and professionalism. Students have a high degree of flexibility in designing their course of study; they select a software engineering application area as their primary focus, and they may obtain interdisciplinary knowledge through a secondary area of their choosing.

## Additional Program Fee: Y.

Second Language Requirement: N.

Career Opportunities: Software engineers solve a broad set of interdisciplinary problems and apply new technologies to improve the quality of life. Graduates design and engineer innovative systems that may include mechanical and electrical components that interact with software. The B.S. in software engineering is a unique program where students learn by solving engaging projects, commonly as a member of a development team. The program prepares graduates for advanced study in computing, an allied field or to enter the computing profession, most commonly as an application software engineer. According to the Bureau of Labor Statistics, software engineers are highly paid and there is significant growth in the number of employment opportunities. Some software engineering jobs may include creating video games; designing embedded systems; developing distributed applications; creating Web applications; or working on data, network, security or computer system administration.

## Contact Information:

Technology and Innovation, College of
Department of Engineering
http://technology.asu.edu/engineering
SANTAN 230
egr@asu.edu
480-727-2727

## Technological Entrepreneurship and Management, BS (TSTEMBS) <br> Campus: ONLNE, POLY

Program Description: If you have an interest in business and technology, the technological entrepreneurship and management program combines the best of both worlds. This program is ideal for those students who are comfortable with technology, see the importance of understanding science and technical systems but want to function more on the process or project management side, and perhaps even start their own business.
In the technological entrepreneurship and management program, students get a solid foundation in technological entrepreneurship and innovation methods with a grounding in business fundamentals.
Focus areas include:

- Product design and development.
- Alternative energy entrepreneurship.
- Process innovation.
- Social entrepreneurship.
- Digital media entrepreneurship.

All focus areas will concentrate on technology-based entrepreneurship and innovation with a focus on business development and growth. The focus areas include faculty from various disciplines throughout the College of Technology and Innovation.

This major is eligible for the Western Undergraduate Exchange (WUE) program at the following location: POLY campus. Students from Western states, who select this major and campus, may be eligible for reduced nonresident tuition at a rate of 150 percent of Arizona resident tuition plus all applicable fees. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (http://students.asu.edu/admission/wue).

## Additional Program Fee: N.

Second Language Requirement: N.
First Required Math Course: MAT 170 Precalculus.

Career Opportunities: Our economy is driven by companies and individuals that turn creative ideas into new products, services and solutions. Innovative and entrepreneurial application of science and technology are the basis for the solutions to today's most challenging problems. Students develop critical thinking skills and a systems perspective as they learn how to function on interdisciplinary teams to design and deliver new products and services. Students also learn how to conceive and develop business models that lead to sustainable enterprise.
This degree will allow you to work as a consultant, a business developer, a project manager or as an entrepreneur.
Example types of careers include business development, consultant, project manager, entrepreneur, product manager, innovation manager, quality manager or technician, market analyst or planning, marketing consultant, strategic planner or analyst, venture capitalist, operations manager, six sigma or lean six sigma program manager.

## Contact Information:

Technology and Innovation, College of
Dept of Tech Entrepreneurship and Innovation Mgmt
http://technology.asu.edu/
SANTN 330
technology@asu.edu
480-727-1874

## Undergraduate Exploratory Programs (Program Descriptions)

## University College

## Exploratory Health \& Life Sciences, Pre-Prof/E (UCHSCIEXPL)

Campus: DTPHX, POLY, TEMPE, WEST
Program Description: The exploratory health and life sciences track affords students an opportunity to explore a variety of majors related to the health and life science professions. For a complete list of all majors associated with this exploratory track, reference http://uc.asu.edu/advising.

## Additional Program Fee: N.

Second Language Requirement: N.
Admission Requirements: Students with fewer than 45 college credit hours are admissible to this exploratory track. This is not a degree-granting track; therefore, students must declare an ASU major prior to completing 45 college credit hours.

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

Contact Information:
University College
University College
http://uc.asu.edu/
UASB 129
exploratory@asu.edu
480-965-4464

## Exploratory Humanities, Fine Arts \& Design, Pre-Prof/E (UCHUFAEXPL)

Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The exploratory humanities, fine arts, and design track affords students an opportunity to explore a variety of majors related to the humanities, fine arts, and design professions. For a complete list of all majors associated with this exploratory track, reference http://uc.asu.edu/advising.

## Additional Program Fee: N.

Second Language Requirement: N.

Admission Requirements: Students with fewer than 45 college credit hours are admissible to this exploratory track. This is not a degree-granting track; therefore, students must declare an ASU major prior to completing 45 college credit hours.

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

## Contact Information:

University College
University College
http://uc.asu.edu/
UASB 129

## Exploratory Math, Physical Sciences, Engineering \& Technology, Pre-Prof/E (UCEMTPEXPL) Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The exploratory mathematics, physical sciences, engineering, and technology track affords students an opportunity to explore a variety of majors related to the mathematics, physical sciences, engineering, and technology professions. For a complete list of all majors associated with this exploratory track, reference http://uc.asu.edu/advising.

Additional Program Fee: N.
Second Language Requirement: $N$.

Admission Requirements: Students with fewer than 45 college credit hours are admissible to this exploratory track. This is not a degree-granting track; therefore, students must declare an ASU major prior to completing 45 college credit hours.

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

## Contact Information:

University College
University College
http://uc.asu.edu/
UASB 129
exploratory@asu.edu
480-965-4464

## Exploratory Social \& Behavioral Sciences, Pre-Prof/E (UCSBSEXPL) <br> Campus: DTPHX, POLY, TEMPE, WEST

Program Description: The exploratory social and behavioral sciences track affords students an opportunity to explore a variety of majors related to the social and behavioral sciences, and business-related careers. For a complete list of all majors associated with this exploratory track, reference http://uc.asu.edu/advising.

Additional Program Fee: N.
Second Language Requirement: N.
Admission Requirements: Students with fewer than 45 college credit hours are admissible to this exploratory track. This is not a degree-granting track; therefore, students must declare an ASU major prior to completing 45 college credit hours.

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

## Contact Information:

University College
University College
http://uc.asu.edu/
UASB 129
exploratory@asu.edu
480-965-4464

## Undergraduate Programs - Other (Program Descriptions)

## Pre-Health/Pre-Med Professions, Pre-Prof/E (LAMEDPRE)

Campus: DTPHX, POLY, TEMPE, WEST

Program Description: Students who are interested in pursuing a medical, dental or other health career can major in any area they wish, as long as they fulfill the particular professional school's prerequisite requirements. Successful applicants have majored in such diverse fields as:

- Art.
- Biology.
- Chemistry.
- Economics.
- Engineering.
- Music.
- Psychology

The Health Professions Advising office provides ongoing academic career advising for pre-health students who wish to pursue a career in:

- Chiropractic.
- Dentistry.
- Medicine.
- Naturopathy.
- Occupational therapy.
- Optometry.
- Pharmacy.
- Physical therapy.
- Physician assistant.
- Podiatry.
- Veterinary medicine.

Additional Program Fee: Y .
Second Language Requirement: N.
Admission Requirements: Students must meet the admission requirements of the major to which they apply.
Career Opportunities: The Health Professions Advising office is devoted to helping students make important decisions about their futures and assisting them with the technical aspects of the application process for professional health programs. The very competitive nature of admission to these programs makes it essential for students to work closely with the office from the beginning of their studies at ASU.

## Contact Information:

Dean, College of Liberal Arts and Sciences
http://prehealth.asu.edu
FULTN 135
prehealth@asu.edu
480-965-2365

## Pre-Law, Pre-Prof/E (LALAWPRE)

Campus: TEMPE
Program Description: There is no pre-law program in which a student can major at ASU. Law school admission policies do not favor one major over another, provided the pre-law student's chosen major requires substantive course work. Instead of recommending a single program, the Association of American Law Schools suggests that an undergraduate education develop certain skills, qualities, knowledge and insights essential to the law student and ultimately to the profession. All students interested in law school are encouraged to meet with a pre-law advisor in FULTN 135.

Additional Program Fee: N.
Second Language Requirement: N.

## Admission Requirements:

Career Opportunities: Pre-law advisors can help students make important decisions about their futures and assist them with the technical aspects of the application process for law school programs.

## Contact Information:

Dean, College of Liberal Arts and Sciences
http://prelaw.asu.edu
FULTN 135
clasundergrad@asu.edu
480-965-2365

