

# Undergraduate Programs

## Minors (Program Descriptions and Requirements)

### African and African American Studies Minor (LAAFRMIN)

**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>

[aframstu@asu.edu](mailto:aframstu@asu.edu)

### **Aging and Lifespan Development Minor (HSALDMIN)**

**Description:** The minor in aging and lifespan development is available to any ASU undergraduate students who wish to have knowledge of aging-related issues that may help them in their career or personal lives. Students pursuing the minor will have the opportunity to learn about the specific and often unique needs of older adults and their families, and the impact on social institutions. Students majoring in areas such as business, criminal justice, recreation and tourism, finance, political science, social work, marketing, architecture, rehabilitation therapy and many other programs may find the aging and lifespan development minor a competitive advantage for career development.

**Program Requirements:** The minor is 18 credits (six courses), consisting of one required overview course (ALD 101), one core course (ALD 420, PGS 427 or ALD 440), and four elective courses (which may include any of the core courses not used as the core).

Please note that all courses except ALD 101 are offered online. The courses offered include:

- ALD 101 Introduction to Aging Issues Across the Lifespan
- ALD 303 Aging, Lifespan Development, and the Family
- ALD 404 Sexuality and Aging
- ALD 420 Health Aspects of Aging
- ALD 431 Caregiving for Older Adults
- ALD 440 Social Policy Issues in Midlife and Beyond
- ALD 460 Alzheimer's and Related Dementias
- ALD 474 Women, Aging, and the Life Course
- ALD 484 Internship (requires permission)
- ALD 494 Special Topics: Elder Abuse, Diversity in Aging, Mental Health and Aging, Spirituality, others, as approved by the department
- SOC 353 Death and Dying
- CMN 417 Communication and Aging PGS 427 Psychology of Aging RTM 450 Leisure and Aging

**Enrollment Requirements:** Students may not declare this minor, as the program is currently on hold.

#### **Contact Information:**

Liberal Arts and Sciences, College of  
School of Aging and Lifespan Development  
<http://sald.asu.edu/>  
FAB 115A  
602/543-6642

### **American Indian Studies Minor (LAAISMIN)**

**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.
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/>  
AIS@asu.edu  
DHALL 356  
480/727-7056

**American Studies Minor (ASAMSMIN)**

**Description:** The minor in American studies 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 minor consists of 18 credit hours, 12 of which must be upper-division hours:

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 faculty 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, 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. 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:**

Interdisciplinary Arts & Sciences, New College of  
Division of Humanities, Arts, and Cultural Studies

[http://newcollege.asu.edu/programs/amer\\_studies/minor\\_certs/index.shtml](http://newcollege.asu.edu/programs/amer_studies/minor_certs/index.shtml)

[harcs.dept@asu.edu](mailto:harcs.dept@asu.edu)

FAB N201

602/543-4444

### **Anthropology Minor (LAASBMIN)**

**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:

1. Sociocultural anthropology (with linguistics).
2. Archaeology.
3. Physical anthropology.

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.
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.undergrad@asu.edu  
SHESC 233  
480/965-6215

**Applied Biological Sciences Minor (TSABSMIN)**

**Description:** The Department of Applied Biological Sciences offers rigorous and practical programs in applications of the biological sciences. Consistent with a polytechnic vision, programs involve extensive student interaction with faculty through experience-based learning activities, including laboratories, field trips, internships and faculty-guided research and service-learning projects. 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 24 credit hours, including BIO 187 General Biology I and BIO 188 General Biology II, and at least 15 hours selected with the approval of an advisor; at least 12 hours must be in upper-division courses offered by the Department of Applied Biological Sciences.

**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.
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:**

Technology and Innovation, College of  
Department of Applied Biological Sciences  
<http://technology.asu.edu/dasm>

appliedbiologicalscience@asu.edu

WANER 340

480/727-1444

### **Applied Psychology Minor (ECPSYMIN)**

**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) (or equivalent statistics course)  
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 to satisfy this minor requirement:

PGS 399 Supervised Research (3)  
PGS 499 Individualized Instruction (3) or PSY 499 Individualized Instruction (3)  
PSY 492 Honors Directed Study (3)

Note: 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. All other PSY courses listed above are offered at the Polytechnic and Tempe 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/dasm>

technology@asu.edu

SANCA 150

480/727-1874

### **Architectural Studies Minor (ARSTDMIN)**

**Description:** The architectural studies minor is available to nonarchitecture 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 21 credit hours (to include 12 credit hours of upper-division course work) are required for the minor.

Required Courses (9)

ALA 100 Introduction to Environmental Design, HU, G, H (3)

APH 213 History of Architecture I, L/HU, G, H (3)

APH 214 History of Architecture II, L/HU, G, H (3)

Twelve 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 414 History of the City, H (3)

APH 441 Ancient Architecture (3)

APH 444 Baroque Architecture (3)

APH 346 20th-Century Architecture I, HU (3)

APH 347 20th-Century Architecture II, HU (3)

APH 494 Culture of Place, C (3)

APH 494 Special Topics (3)

APH 499 Individualized Instruction\* (3)

APH 511 Energy Environmental Theory (3)

APH 598 Special Topics (3)

ARP 451 Architectural Field Studies (6)

ATE 494 Special Topics (3)

ATE 598 Special Topics (3)\*

These courses require 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.
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 Architecture and Landscape Architecture  
<http://herbergerinstitute.asu.edu/degrees/sala.php>  
herbergeradvising@asu.edu  
CDN 162  
480/965-3536

### Art History Minor (FAARTHMIN)

**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>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Asian Languages - Chinese Minor (LACHIMIN)**

**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.
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>  
[silcadvising@asu.edu](mailto:silcadvising@asu.edu)  
LL 440  
480/965-6281

**Asian Languages - Japanese Minor (LAJPNMIN)**

**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:

1. Up to six credit hours in 200-level JPN courses.
2. JPN 313 Third-Year Japanese I, G (3).
3. JPN 314 Third-Year Japanese II, G (3).
4. Six credit hours of additional upper-division JPN courses chosen in consultation with a School of International Letters and Cultures advisor. 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.
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>  
[silcadvising@asu.edu](mailto:silcadvising@asu.edu)  
LL 440  
480/965-6281

## Asian Pacific American Studies Minor (LAAPAMIN)

**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 12 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

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

#### Contact Information:

Liberal Arts and Sciences, College of  
School of International Letters and Cultures  
<http://apas.clas.asu.edu/>  
[apas@asu.edu](mailto:apas@asu.edu)  
WILSN 342  
480/965-3711

### Astronomy Minor (LAASTMIN)

**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. A minimum of 24 hours of AST and related courses are required, including 8 hours of upper-division electives to be chosen after consultation with an academic advisor.

**Program Requirements:** The minor in astronomy consists of a minimum of 24 credit hours. At least 12 credit hours must be in upper-division 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:

1. The college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met.
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://sese.asu.edu/students>.

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Earth and Space Exploration  
<http://sese.asu.edu>  
[seseinfo@asu.edu](mailto:seseinfo@asu.edu)  
PS F686  
480/965-5081

**Biochemistry Minor (LABCHMIN)**

**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 BCH/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: <http://chemistry.asu.edu/undergrad/programIntro.asp> .

**Contact Information:**

Liberal Arts and Sciences, College of

Department of Chemistry and Biochemistry

<http://chemistry.asu.edu>

[chmugadv@asu.edu](mailto:chmugadv@asu.edu)

PS D102

480/965-3461

**Biological Sciences Minor (LABIOMIN)**

**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:

1. At least 12 hours must be upper division courses in the life sciences.
2. 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).
3. This minor is not available to students majoring in the life sciences.
4. Internship courses are not accepted as fulfilling the 24 credit hour requirement.

**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.
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://sols.asu.edu/ugrad/degree\\_prog/index.php](http://sols.asu.edu/ugrad/degree_prog/index.php).

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Life Sciences  
<http://sols.asu.edu/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
LSC 206  
480/727-6277

**Business Minor (BABUSMIN)**

**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 a topics that are important to managers such as accounting, computer information systems, economics, finance, management and 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 Honor 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 the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met, and 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

<http://wpcarey.asu.edu/undergraduate/current-students/academics/current-catalogs.cfm>

wpcareyug@asu.edu

BA 109

480/965-4227

**Chemistry Minor (LACHMMIN)**

**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.
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>

[chmugadv@asu.edu](mailto:chmugadv@asu.edu)

PS D102

480/965-3461

**Chemistry Minor (ASCHMMIN)**

**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)

CHM 113 General Chemistry I  
CHM 116 General Chemistry II  
CHM 233 Organic Chemistry I  
CHM 237 Organic Chemistry Laboratory I  
CHM 233 Organic Chemistry II  
CHM 237 Organic Chemistry Laboratory II  
BCH 361 Principles of Biochemistry  
LSC 366 Elementary Biochemistry Laboratory  
CHM 327 Instrumental Analysis  
CHM 328 Instrumental Analysis 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:

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.

Contact Information:

New College of Interdisciplinary Arts and Sciences  
Division of Mathematical and Natural Sciences  
[http://www.newcollege.asu.edu/programs/math\\_sci/](http://www.newcollege.asu.edu/programs/math_sci/)  
MNS.Dept@asu.edu  
CLCC 217  
602/543-6050

### **Communication Minor (LACOMMIN)**

**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.
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/>

[communication@asu.edu](mailto:communication@asu.edu)

STA 412

480/965-5095

**Communication Studies Minor (HSCMNMIN)**

**Description:** The communication studies minor offers students the opportunity to understand the role and function of communication in various cultural, public, organizational and relational contexts. The program offers a variety 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 studies courses. All courses must be passed with a minimum grade of "C" (2.00).

**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.
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:**

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

[http://newcollege.asu.edu/programs/comm\\_studies/minor/](http://newcollege.asu.edu/programs/comm_studies/minor/)

SBS.Dept@asu.edu

FAB S105

602/543-6058

**Computational Mathematical Sciences Minor (LACMSMIN)**

**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.
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 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/>

[math@asu.edu](mailto:math@asu.edu)

PSA 211

480/965-7195

**Dance Minor (FADANMIN)**

**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

- Dance cultures.
- Dance history.
- Digital media.
- Movement science.
- Music.
- Philosophy and criticism.
- Somatics.
- Stage and screen production.

**Program Requirements:** The school offers a minor in dance consisting of 18 credit hours of course work, including twelve upper-division 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:

DAH/DCE 301 Philosophy and Criticism of Dance (L or HU)

DAH/DCE 302 Cross-Cultural Dance Studies ([L or HU] & G)

DAH/DCE 401 Dance History (HU)

Choose two from the following courses, for a total of four credit hours:

DAN 130 Jazz

DCE 113 Dances of Africa

DCE 120 Modern I

DCE 220 Modern II

DCE 121 Ballet I

DCE 221 Ballet II

DCE 194/294/394 Special Topics\*

Choose eight credit hours of dance electives to complete 18 hours overall (including 12 total upper-division hours).  
Contact a Herberger Institute advisor for course recommendations.

\*Special topics offered in forms such as

- Argentine tango.
- Capoeira.
- Dances of India.
- Feldenkrais.
- Hip hop.
- Latin salsa.
- Latin/swing/ballroom.
- Raqs sharqi.
- Pilates/yoga.
- Tai chi.

For more information, contact the Herberger Institute Office of Student Success.

**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

<http://dance.asu.edu/>

[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)

PEBE 107A

480/965-5029

**Design Studies Minor (ARDSNMIN)**

**Description:** Students interested in design can earn a minor in design studies. 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- 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 411 First Concepts (3)

LPH 311 Contemporary Landscape Architecture, HU (3)

APH 598 South American Architecture (3)



Design:

DSC 101 Design Awareness, HU, G (3)

Graphic Design:

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 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 494 Latin American Design (3)

## Urban Planning:

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 301 Introduction to Urban Planning, L (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)

**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.
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 Design Innovation  
<http://herbergerinstitute.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
CDN 162  
480/965-7007

### **Economics Minor (LAECNMIN)**

**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.
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>  
[wpcareyecn@asu.edu](mailto:wpcareyecn@asu.edu)  
BAC 653  
480/965-2128

### **Economics for Students Planning a Career in Law Minor (LAECNLMIN)**

**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.
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)**

**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.

Required Core Course

ENG200 Critical Reading and Writing about Literature L/HU (3)

Campus Specific Requirements

Distribution Cluster Requirement (24)

Select one course from each distribution cluster (see advisor for specific course offerings). At least two courses must be at the 400-level. Students may once only, use one course to satisfy two distribution requirements.

1. Ethnicity, gender and postcoloniality.
2. Literature and culture before 1860.
3. Literature and culture after 1860.
4. Rhetoric, writing and linguistics.

5. Theory and interdisciplinary studies.

Additional hours to complete 24 credit hours are electives chosen from program offerings. Eighteen credit hours 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 or department of his or her major to make sure the college or department of the major recognizes 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. 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:**

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts and Cultural Studies

[http://newcollege.asu.edu/programs/english/minor\\_certs/minor.shtml](http://newcollege.asu.edu/programs/english/minor_certs/minor.shtml)

harcs.dept@asu.edu

FAB N201

602/543-4444

**English - Linguistics Minor (LAENGMINN)**

**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 the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met; and 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>  
[englishadvising@asu.edu](mailto:englishadvising@asu.edu)  
LL 542  
480/965-3168

**English - Literature Minor (LAENGMINT)**

**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 the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met; and 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>  
[englishadvising@asu.edu](mailto:englishadvising@asu.edu)  
LL 542  
480/965-3168

**Ethnic Studies Minor (ASETHMIN)**

**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 that 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

ETH 300 Principles of Ethnic Studies, C (3)

ETH 484 Ethnic Studies Internship (3)

Electives (15)

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 or department of his or her major to make sure the college or department of the major recognizes 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. 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:**

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies

[http://newcollege.asu.edu/programs/erfns/minor\\_cert/minor.shtml/](http://newcollege.asu.edu/programs/erfns/minor_cert/minor.shtml/)

harcs.dept@asu.edu

FAB N201

602/543-4444

**Family and Human Development Minor (LAFASMIN)**

**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 331 Marriage and Family 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)

CDE 444 Risk and Variation in Child Development (3)

CDE 498 Pro-Seminar (3) or FAS 498 Pro-Seminar (3)

FAS 431 Parent-Adolescent Relationships SB (3)

FAS 440 Fundamentals of Marriage and Family 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: the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met; and 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/>

[ssfd@asu.edu](mailto:ssfd@asu.edu)

SS 144

480/965-6978

**Film and Media Production Minor (FAFMPMIN)**

**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 15 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 15 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)

Upper-division elective in FMP, THP or THE related to film and media (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.

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.
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>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
GHALL 232  
480/965-5337

**Film and Media Studies Minor (LAFMSMIN)**

**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, HU

FMS 300 Media and Cultural Studies, HU, L

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: the college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met; and 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  
<http://film.asu.edu/minor>  
filminfo@asu.edu  
LL 641  
480/965-6747

**Food and Nutrition Management Minor (ECFNTRMIN)**

**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:

1. The college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met.
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:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu  
HSC 1386  
480/727-1728

## French Minor (LAFREMIN)

**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.
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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL 440

480/965-6281

## Geography Minor (LAGCUMIN)

**Description:** The minor in geography, with a minimum of 18 credit hours, 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.
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/geography-programs>

[geoplan@asu.edu](mailto:geoplan@asu.edu)

COOR 5673

480/965-7533

#### **Geological Sciences Minor (LAGLGMIN)**

**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.
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 Geological Sciences

<http://sese.asu.edu>

[sesinfo@asu.edu](mailto:sesinfo@asu.edu)

PSF 686

480/965-5081

**German Minor (LAGERMIN)**

**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.
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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL440

480/965-6281

#### **Global Studies Minor (LASGSMIN)**

**Description:** The School of Government, 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 103 Contemporary Global Trends (3) or SGS 303 Global Trends (3)

The remaining 12 credit hours may be chosen among the other upper division 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. 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 Government, Politics and Global Studies.

**Contact Information:**

Liberal Arts and Sciences, College of

School of Government, Politics and Global Studies

<http://globalstudies.clas.asu.edu/>

[globalstudies@asu.edu](mailto:globalstudies@asu.edu)

COOR 6705

480/965-8563

**History Minor (ASHISMIN)**

**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 six credit hours may be lower-division.

Choose one of the following combinations (6)

A two-semester survey in U.S. history, European history, or world history

--- or ---

HIS 355 World History to 1500, G, H and HIS 356 World History since 1500, G, H

--- or one course each from the following two lists ---

AMS 310 History of American Systems to 1865, L, C, H

AMS 320 American Cultural History I, SB, H

HIS 305 History of American Systems to 1865, L, C, H

AMS 311 History of American Systems since 1865 II, H

AMS 321 American Cultural History II, SB, H

AMS 330 Introduction to American Lives, HU

HIS 304 American Cultural History II, SB, H

HIS 306 History of American Systems since 1865, H

Upper-Division Requirements (3)



## History Electives (9)

**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. 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:

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies

[http://newcollege.asu.edu/programs/history/minor\\_certs/](http://newcollege.asu.edu/programs/history/minor_certs/)

harcs.dept@asu.edu

FAB N201

602/543-4444

### History Minor (LAHISMIN)

**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 upper-division 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.
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>

[SHPRSadvising@asu.edu](mailto:SHPRSadvising@asu.edu)

COOR 3309

480/965-8364

**History & Culture Minor (ECHTYMIN)**

**Description:** The history and culture minor focuses on public policy, archival work, Southwest history and related fields. Three degree tracks are available:

- Environmental history and culture.
- History and culture of the American Southwest.
- History for secondary teachers.

**Program Requirements:** The minor in history and culture consists of 18-24 credit hours as follows:

1. Nine credit hours from the core (HST 300, HST 343, and HST 344).
2. Six credit hours of focus-area courses in their chosen track.
3. Three to nine credit hours of 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.
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:**

Letters and Sciences, School of

<http://sls.asu.edu/>

[sls@asu.edu](mailto:sls@asu.edu)

SANCA 230

480/727-1526

## Human Nutrition Minor (ECNTRMIN)

**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.
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:

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu  
HSC 1386  
480/727-1728

## Interdisciplinary Organizational Studies Minor (ASIOSMIN)

**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

Research methods course (3)\*

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)

#### 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 Employee Participation Processes in Organizations (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, CMN 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. 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. No more than six credits may be applied from major requirements toward completion of the minor. Please contact the department for more information and see [http://newcollege.asu.edu/programs/interdisciplinary\\_org\\_studies/](http://newcollege.asu.edu/programs/interdisciplinary_org_studies/).

**Contact Information:**

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

<http://newcollege.asu.edu/divisions/sbs/>

SBS.Dept@asu.edu

FAB S105

602/543-6058

**Interior Design History Minor (ARINTMIN)**

**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.
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 Design Innovation

<http://herbergerinstitute.asu.edu/degrees/design.php>

herbergeradvising@asu.edu

CDN 162

480/965-8947

**Italian Minor (LAITAMIN)**

**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.

Required courses include:

ITA 201 Intermediate Italian, G (4)

ITA 202 Intermediate Italian, G (4)

ITA 311 Italian Composition and Conversation, G (3) or ITA 312 Italian Composition and Conversation, G (3) or ITA 315 Italian for Business (3)

ITA 325 Introduction to Italian Literature, HU (3)

One 300 or 400-level ITA course (3)

One 400-level ITA 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 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.
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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL 440

480/965-6281

**Justice Studies Minor (LAJUSMIN)**

**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.
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>

[justiceinfo@asu.edu](mailto:justiceinfo@asu.edu)

WILSN 125

480/965-7682

**Kinesiology Minor (LAKINMIN)**

**Description:** The kinesiology minor is for the student interested in gaining a disciplinary knowledge of anatomical, biomechanical, developmental, physiological, psychological and sociological aspects of human movement and physical activity.

**Program Requirements:** 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. All Kinesiology courses must also be completed with a grade of "C" (2.00) or higher.

KIN 101 Introduction to Kinesiology (3)

Choose nine credits from among the courses below:

KIN 335 Biomechanics (3)

KIN 340 Physiology of Exercise (3)

KIN 345 Motor and Developmental Learning (3)

KIN 352 Psychosocial Aspects of Physical Activity, SB, C (3)

Nine additional credit hours in KIN, excluding KIN 305, 310, 484, 492, 493, 498 and 499



**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.
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

College of Nursing and Health Innovation

<http://kinesiology.clas.asu.edu/>

kinesundgrad@asu.edu

PEBW 218

480/965-3875

**Landscape Architecture Studies Minor (ARLNDMIN)**

**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 21 credit hours (to include 12 credit hours of upper-division course work) are required for the minor.

Required Courses:

ALA 102 Architecture, Landscape Architecture, and Society, G (3)

LPH 210 History of Landscape Architecture, HU, H (3)

LPH 211 Contemporary Landscape Architecture, HU (3)

Twelve 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.
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 Architecture and Landscape Architecture

<http://herbergerinstitute.asu.edu/degrees/sala.php>

herbergeradvising@asu.edu

CDN 162

480/965-3536

## Life Sciences Minor (ASLSCMIN)

**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)

CHM 113 General Chemistry, SQ (4)

CHM 116 General Chemistry II, SQ (4)

BIO 320 Fundamentals of Ecology (3)

BIO 322 Fundamentals of Ecology Laboratory (1)

LSC 347 Fundamentals of Genetics (3)

LSC 348 Fundamentals of Genetics Laboratory (1)

BIO 353 Cell Biology (3)

BIO 354 Cell Biology 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.
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:

Interdisciplinary Arts & Sciences, New College of

Division of Mathematical and Natural Sciences  
<http://newcollege.asu.edu/programs/lifesci/>  
MNS.Dept@asu.edu  
CLCC 217  
602/543-6050

### Literature, Writing and Film Minor (ECLWFMIN)

**Description:** Literature, writing, and film offers students the opportunity to develop their skills in professional, academic and imaginative writing, as well as their interpretation of literary and non-literary texts and critical thinking. The focus is on effective writing, critical thinking, and sophisticated reading of literary and non-literary texts. The program stresses cultural and information literacy. It encourages the study of texts in their cultural context and stresses the role of media and technology in the reading process. The philosophy of the program is that students should be offered an experience that integrates formal course work, independent and varied research, internships and service opportunities. The program goal is to prepare independent and effective scholars and professionals who can transition seamlessly into careers in writing and teaching and who are well prepared for graduate or further professional study. Three tracks are available:

- English for secondary teachers.
- Writing.
- Literature and film.

**Program Requirements:** The minor in literature, writing and film consists of 18-24 credit hours as follows:

1. Nine credit hours from the core (ENG 200, ENG 217 and ENH 230).
2. Six upper-division credit hours of focus-area courses in their chosen track.
3. Six upper-division credit hours of 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.
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:

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

## Materials Science and Engineering Minor (ESMSEMIN)

**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>

macme@asu.edu

ECG 202

480/965-2335

## Mathematics Minor (ASMATHMIN)

**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.
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:**

Interdisciplinary Arts & Sciences, New College of

Department of Mathematical Sciences and Applied Computing

[http://www.newcollege.asu.edu/programs/math\\_sci/](http://www.newcollege.asu.edu/programs/math_sci/)

MNS.Dept@asu.edu

CLC C217

602/543-6050

**Mathematics Minor (LAMATMIN)**

**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 otherwise approved 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.
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/>

math@asu.edu

PSA 211

480/965-7195

**Media Analysis Minor (CSCMOMINA)**

**Description:** The mass media, more than ever before, play 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 Cronkite 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 Emerging Media Technologies (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.
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](http://cronkite.asu.edu/undergrad/minor_media_analysis.php).

**Contact Information:**

Journalism, Walter Cronkite School of  
<http://cronkite.asu.edu>  
[cronkiteadvising@asu.edu](mailto:cronkiteadvising@asu.edu)  
CRONK 220  
602/496-5055

**Military Leadership Minor (LAMISMIN)**

**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 problem solving, negotiating, leading, motivating and empowering others, team building, effective communication and leadership ethos.

**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 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:

Twelve hours in MIS 100 and MIS 200 level courses.

Leader's training course in Ft. Knox, KY.

Three years of introductory leadership training in high school JROTC.

Prior honorable military service.

Contact Information:

Liberal Arts and Sciences, College of  
Department of Military Science  
<http://militaryscience.clas.asu.edu/>  
480/965-3318

### **Music Minor (FAMUSMIN)**

**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 21 credit hours of course work. A minimum grade of "C" (2.00) is required in all courses.

Required Courses (9 credit hours)

- MHL 201 Mac Literacy for Musicians\* (3)
- MUP 100 Concert Attendance (four semesters) (0)
- 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 at <http://music.asu.edu/students/current/undergrad/minorinfo.php>.

**Contact Information:**

Design and the Arts, Herberger Institute for

<http://music.asu.edu>

[somadmissions@asu.edu](mailto:somadmissions@asu.edu)

MUSIC E167

480/965-3371

**Nonprofit Administration Minor (PPNLMMIN)**

**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:** Completion of a nonprofit minor in the School of Community Resources and Development requires the following:

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

#### Core (6)

NLM 160 Voluntary Action and Community Leadership

NLM 220 Introduction to Nonprofit Organizations

#### Electives (9)

NLM 300 Fundraising and Resource Development

NLM 301 Sustainable Communities

NLM 302 Inclusive Community Development

NLM 310 volunteer Management

NLM 430 Managing Nonprofit Organizations

NLM 435 Service Learning for Community Development

NLM 494 Special Topics

PRM 303 Program Planning

PRM 486 Special Event Planning

#### Standards

1. 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.
2. 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:

1. The college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met.
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

School of Community Resources and Development

<http://scrd.asu.edu>

[scrd@asu.edu](mailto:scrd@asu.edu)

UCENT 550

602/496-0550

**Parks and Protected Area Management Minor (PPRMMINT)**

**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 the school's therapeutic recreation program.

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

Core (6 credit hours):

PRM 120 Leisure and Quality of Life (3)

PRM 303 Program Planning (3)

Electives (Select 9 credit hours):

PRM 150 Outdoor Pursuits (3)

PRM 302 Inclusive Community 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 Event Management (3)

PRM 494 Special Topics as approved by SCRD advisor (3)

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

#### Standards

1. A minimum GPA of 2.00 for those pursuing the minor, a major, or pre-major, other than parks and recreation management, and tourism development and management.
2. 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:

1. The college and/or department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met.
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://scrd.asu.edu>.

#### Contact Information:

Public Programs, College of

School of Community Resources and Development

<http://scrd.asu.edu>

[scrd@asu.edu](mailto:scrd@asu.edu)

UCENT 550

602/496-0550

## Philosophy Minor (ASPHIMIN)

**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 upper-division hours. 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:

IAS 411 History and Philosophy of Mathematics, HU, H (3) or 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 a 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 or department of his or her major to make sure the college or department of the major allows the recognition of 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. 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:**

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies

[http://newcollege.asu.edu/programs/integrative\\_studies/minor\\_cert/philosophy.shtml](http://newcollege.asu.edu/programs/integrative_studies/minor_cert/philosophy.shtml)

[harc.dept@asu.edu](mailto:harc.dept@asu.edu)

FAB N 290

602/543-4444

**Philosophy Minor (LAPHIMIN)**

**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 knowledge, existence, morality, science, law and politics.

**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 the undergraduate advisor in the philosophy department 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 department of the minor officially certifies, through established verification procedures, that all requirements for the minor have been met.
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>

SHPRSadvising@asu.edu

COOR 3309

480/965-8364

**Physics Minor (LAPHYMIN)**

**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 334 (3)

PHY 361 (3)

Two upper-division electives (to be selected with the approval of the physics advisor) (6)

\*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.

**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.
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>

[physics.info@asu.edu](mailto:physics.info@asu.edu)

PSF 470

480/965-3561

### Political Science Minor (LAPOSMIN)

**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 Government, Politics and Global Studies

<http://www.spgs.clas.asu.edu>

COOR 6797

480/965-6551

### Political Science Minor (ASPOLMIN)

**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 POL courses, 12 of which must be in upper-division courses. Two courses from among the following are required:

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\* (9)

\* 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. However, students should consult with the advisors in the department of their major to determine if the minor is consistent with their educational goals. Please contact the department for more information and see

<http://newcollege.asu.edu/programs/polisci/minor/>.

### Contact Information:

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

<http://newcollege.asu.edu/divisions/sbs/>

SBS.Dept@asu.edu

FAB S105

602/543-6058

### Psychology Minor (LAPGSMIN)

**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 Psychology

Personality/Mental Health

PGS 315 Personality Theory and Research

PGS 466 Abnormal Psychology

Cognitive/Learning

PSY 320 Learning and Motivation

PSY 323 Sensation and Perception

PSY 324 Memory and Cognition

Developmental

PGS 341 Developmental Psychology

Social

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>

[psych.advisor@asu.edu](mailto:psych.advisor@asu.edu)

PSY 255

480/965-7258

**Psychology Minor (ASPGSMIN)**

**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 and 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)

PGS or PSY upper-division electives (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. However, students should consult with the advisors in the department of their major to determine if the minor is consistent with their educational goals. Please contact the division for more information and see [http://newcollege.asu.edu/programs/psychology/minor\\_cert/](http://newcollege.asu.edu/programs/psychology/minor_cert/).

**Contact Information:**

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

<http://newcollege.asu.edu/divisions/sbs/>

SBS.Dept@asu.edu

FAB S105

602/543-6058

**Public Relations and Strategic Communications Minor (HSPRSMIN)**

**Description:** The minor in public relations and strategic communication prepares professionals with highly effective communication skills-speaking, writing, cultural sensitivity, critical thinking, problem-solving, 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. 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.

**Contact Information:**

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

[http://newcollege.asu.edu/programs/comm\\_studies/minor/](http://newcollege.asu.edu/programs/comm_studies/minor/)

SBS.Dept@asu.edu

FAB S105

602/543-6058

**Recreation Management Minor (PPRECMIN)**

**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:** Completion of a recreation management minor in the School of Community Resources and Development requires the following:

1. PRM 120.
2. PRM 424.
3. Fifteen hours of graded classroom course work (no internship, no independent study).
4. A minimum of nine hours of course work at the upper-division level, from the approved list.
5. A minimum grade of "C" (2.00) is required for all classes in the minor.
6. No double counting of courses for both a major and the minor.

Standards

1. A minimum GPA of 2.00 for those pursuing the minor, a major, or pre-major, other than nonprofit leadership and management, parks and recreation management or tourism development and management.
2. Must be a junior to take 400-level courses.

Course Selection (approved list)

Required Courses

PRM 120 Leisure and the Quality of Life, 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.
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://scrd.asu.edu/portal/programs/undergraduate/parks-recreation-management-prm/minor-in-recreation-management> .

**Contact Information:**

Public Programs, College of

School of Community Resources and Development

<http://scrd.asu.edu>

[scrd@asu.edu](mailto:scrd@asu.edu)

UCENT 550

602/496-0550

**Religious Studies Minor (ASRELMIN)**

**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 worldviews 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. 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 the advisor to create a coherent and complete program of study for the minor.

Choose one from the following courses, for a total of three credits:

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 for a total of six credits:

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, for a total of three credits. 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, for a total of nine credits. These courses, or other approved courses, must be chosen in consultation with the 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.

**Contact Information:**

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies

[http://newcollege.asu.edu/programs/integrative\\_studies/minor\\_cert/religious.shtml](http://newcollege.asu.edu/programs/integrative_studies/minor_cert/religious.shtml)

harcs.dept@asu.edu

FAB N201

602/543-4444

**Religious Studies Minor (LARELMIN)**

**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 and Critical Inquiry.

**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 and Critical Inquiry. 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, Philisophical & Religious Studies

[http://shprs.clas.asu.edu/religious\\_studies](http://shprs.clas.asu.edu/religious_studies)

[religious.studies@asu.edu](mailto:religious.studies@asu.edu)

COOR

480/965-5778

**Romanian Minor (LAROMMIN)**

**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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL 440

480/965-6281

## Russian Minor (LARUSMIN)

**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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL 440

480/965-6281

## Science, Technology and Society Minor (ECSTSMIN)

**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 interrelationship 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 18 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 of 2.50 for nonresident applicants.

**Contact Information:**

Letters and Sciences, School of  
<http://sls.asu.edu/>  
[sls@asu.edu](mailto:sls@asu.edu)  
SANCA 230  
480/727-1526

**Small Business Minor (AGSMBMIN)**

**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 contact:  
<http://morrison.asu.edu/msma/bua/minor/> .

**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)

- See <http://morrison.asu.edu/msma/bua/minor/> for list of courses.

**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:**

Business, W. P. Carey School of

Morrison School of Agribusiness and Resources Management

<http://morrison.asu.edu/msma/bua/minor/>

[morrison.school@asu.edu](mailto:morrison.school@asu.edu)

PRLTA 330

480/727-1585

### **Social and Behavioral Sciences Minor (ASSBSMIN)**

**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

SBS 300 Interdisciplinary Approaches to Social and Behavioral Sciences,

SB (3) SBS 302 Qualitative Methods (3) or SBS 303 Quantitative Methods (3)

Electives\* (12)

\*Choose courses from at least two fields of social and behavioral sciences, including SBS and excluding internships or individualized instruction.

**Enrollment Requirements:** The minor in social and behavioral sciences 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. Please contact the division for more information and see [http://newcollege.asu.edu/programs/sbs/minor\\_certs/minor.shtml](http://newcollege.asu.edu/programs/sbs/minor_certs/minor.shtml).

**Contact Information:**

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

<http://newcollege.asu.edu/divisions/sbs/>

[SBS.Dept@asu.edu](mailto:SBS.Dept@asu.edu)

FAB S105

602/543-6058

### **Social Welfare Minor (LASSWMIN)**

**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:

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

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)S

WU 394 Arizona/National Government: A Policy Practice Perspective (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

Total credit hours required: 18

**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>

[social.work@asu.edu](mailto:social.work@asu.edu)

UCENT 800

602/496-0800

### Sociocultural Anthropology Minor (ASASBMIN)

**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:

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

**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 in the interdisciplinary social science degree. 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)

ASB Electives (3)

SBS 301 Cultural Diversity, L/SB, C (3)

SBS 339 Grassroots Social Movements, SB (3)

SBS 342 Mexico-US Borderlands, SB (3)

SBS 450 Topics in Local/Global, SB, G (3)

SBS 460 Urban Studies SB (3)



## SBS 480 Global Justice, G (3)

**Enrollment Requirements:** The minor in sociocultural anthropology 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. Please contact the division for more information and see [http://newcollege.asu.edu/programs/sociocultural\\_anthropology/](http://newcollege.asu.edu/programs/sociocultural_anthropology/).

### Contact Information:

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

<http://newcollege.asu.edu/divisions/sbs/>

SBS.Dept@asu.edu

FAB S105

602/543-6058

### Sociology Minor (LASOCMIN)

**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/>

ssfd@asu.edu

SS 144

480/965-6978

### Sociology Minor (ASSOCMIN)

**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)

SBS 303 Quantitative Methods (3) or SBS 304 Social Statistics I CS (3) or SOC 486 Contemporary Theory SB (3) or SOC 390 Social Statistics I CS (3) or SOC 391 Sociological Research SB (3) or SOC 483 History of Social Thought SB (3)

Additional sociology electives (12)

**Enrollment Requirements:** The minor in sociology 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. Please contact the division for more information and see [http://www.newcollege.asu.edu/programs/sociology/minor\\_cert/](http://www.newcollege.asu.edu/programs/sociology/minor_cert/).

**Contact Information:**

Interdisciplinary Arts & Sciences, New College of

Division of Social and Behavioral Sciences

<http://newcollege.asu.edu/divisions/sbs/>

SBS.Dept@asu.edu

FAB S105

602/543-6058

**Spanish Minor (ASSPAMIN)**

**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. Spanish classes are taught through an intensive language approach using the most recent electronic technologies, including videos, CD-ROMs, electronic chat groups and news groups devoted to Hispanic literature and culture.

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 20 credit hours of Spanish course work, of which 12 credit hours must be in the upper division. All Spanish course work must be completed with a minimum grade of "C" (2.00) or higher.

Complete the following courses, eight credits total:

SPA 201 Intermediate Spanish, G (4)

## SPA 202 Intermediate Spanish, G (4)

Electives, 12 credits total:

The SPA elective courses must be at the 300 or 400 level and chosen in consultation with a department program 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, 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. 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:

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies

[http://newcollege.asu.edu/programs/spanish/minor\\_certs/minor.shtml](http://newcollege.asu.edu/programs/spanish/minor_certs/minor.shtml)

harcs.dept@asu.edu

FAB N201

602/543-4444

### Spanish Minor (LASPAMIN)

**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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL 440

480/965-6281

**Special Events Management Minor (HSEVNMIN)**

**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 courses, which provide basic and advanced instruction, as well as experiential learning opportunities through event production, each student will be able to select electives to meet his or her specific interests.

**Program Requirements:** To earn the minor, students must complete all course work in the minor with a minimum grade of "C" (2.00) or higher. Recreation and tourism management majors are not eligible to earn the minor in special events management.

**Enrollment Requirements:** Please contact the department for more information.

**Contact Information:**

Public Programs, College of

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

### **Speech and Hearing Science Minor (LASHSMIN)**

**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.
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/>

[shsadvise@asu.edu](mailto:shsadvise@asu.edu)

COOR 2215

480/965-4520

**Statistics Minor (LASTAMIN)**

**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.
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/>

math@asu.edu

PSA 211

480/965-7195

**Sustainability Minor (SUSUSMIN)**

**Description:** The School of Sustainability 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 (3)

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:

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

Six credit hours of 300-400 level sustainability electives commensurate with student's major.

Consult with your major academic advisor for course selection.

**Enrollment Requirements:** The sustainability minor is available to students pursuing a major outside of the School of Sustainability. Students who wish to add the minor in sustainability to the degree they are currently pursuing may do so if approved by the major department, school or college. Please contact your academic advisor for more information. This minor is not available to business students pursuing the sustainability concentration.

**Contact Information:**

School of Sustainability

<http://schoolofsustainability.asu.edu/>

schoolofsustainability@asu.edu

GIOS 108

480/727-6963

## Theatre Minor (FATHEMIN)

**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 theatre and performance studies, directing and performance, design and production, new work development or theatre for youth.

**Program Requirements:** The school offers a minor in theatre consisting of 22 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 (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 theatre course work within the same curricular area. 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.

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.
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  
herbergeradvising@asu.edu  
GHALL 232  
480/965-5337

### **Tourism Development and Management Minor (PPTDMMIN)**

**Description:** The minor in tourism development and management program provides students with the planning and development skills needed to enter the largest industry in the world. Exposure to the businesses of nature-based 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 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 such 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 Web site. Students may also choose to complete a study abroad program.

**Program Requirements:** Completion of a tourism minor in the School of Community Resources and Development requires following:

1. TDM 205.
2. TDM 325.
3. TDM 415.
4. Fifteen hours of graded classroom course work (no internship, no independent study).
5. Nine hours of course work at the upper division level, from the approved list.
6. A minimum "C" (2.00) grade required for all classes in the minor.
7. No double counting of courses for both a major and the minor.

#### Standards

1. A minimum GPA of 2.00 for those pursuing the minor, a major or pre-major, other than tourism development and management.
2. Must be a junior to take 400-level courses.

#### Course Selection (approved list)

#### Required courses

1. TDM 205 Introduction to Travel and Tourism, G (3).
2. TDM 325 Tourism Accommodations, prerequisites: must have completed REC305 or TDM205 with a grade of "C" (2.00 on a scale of 4.00) or higher or be currently enrolled (3).
3. TDM 415 Tourism Transportation Systems, prerequisites: must have earned grade of "C" (2.00 on a scale of 4.00) or higher in REC 305 or TDM 205 or be currently enrolled (3).

Choose two courses from the list below:

PRM 120 Leisure and the Quality of Life, SB (3)

TDM 345 Meeting and Convention Planning (3) (prerequisites: must have completed REC 305 or TDM 205 with a grade of "C" (2.00) or higher or be currently enrolled)T

DM 350 Tourism Marketing (3) (prerequisites: TDM 205 (or REC 305) with a grade of "C" (2.00 on a scale of 4.00) or higher or be currently enrolled; must have completed at least 45 hours)

TDM 386 Convention and Sales Management (3)

TDM 448 Heritage and Cultural Tourism (3) (prerequisites: must have completed PRM 120 or REC120 with a grade of "C" (2.00 on a scale of 4.00) or higher or be currently enrolled)

TDM 458 International Tourism (3)

TDM 480 Nature Based Tourism (3) (prerequisite: PRM 120 or TDM 205)

TDM 494 Special Topics (this course requires CRD advisor approval)

PRM 475 Entrepreneurial Recreation and Tourism (3) (prerequisites: must have earned grade of "C" (2.00 on a scale of 4.00) or higher in PRM 120 or REC 120 or be currently enrolled)

PRM 380 Wilderness and Parks in America, SB, H (3)

PRM 486 Special Event Management (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.
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. Students pursuing a B.S. in tourism development and management are not eligible to complete this minor.

**Contact Information:**

Public Programs, College of

<http://scrd.asu.edu>

[scrd@asu.edu](mailto:scrd@asu.edu)

UCENT 550

602/496-0550

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

**Description:** The Department of Transborder Chicana/o and Latina/o 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 permission of the department, school or college of their major as well as the advisor in the Department of Transborder Chicana/o Latina/o 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 department for more information.

### Contact Information:

Liberal Arts and Sciences, College of

Department of Transborder Chicana/o & Latina/o Studies

<http://transborder.clas.asu.edu>

[tcls.info@asu.edu](mailto:tcls.info@asu.edu)

COOR 6635

480/965-5091

## Urban and Metropolitan Studies Minor (PPURBMIN)

**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:**

1. Fifteen hours of course work with a "C" (2.00 on a scale of 4.00) or better in each course.
2. Nine hours of upper-division course work from the approved list.
3. 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 100 Introduction to Urban and Metropolitan Studies (3) or URB 300 Urban and Metropolitan Studies (3)

URB 105 Introduction to Urban Governance (3) or 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 Research II (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

- Leadership and change.
- Leadership and communication.
- Policy analysis and evaluation.
- Urban economics.
- Political economy.
- Computer applications.
- Community building and development.
- Regionalism.

- Poverty and social welfare policy.
- Comparative urbanism.

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.
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://spa.asu.edu/urban/minor.htm>.

**Contact Information:**

Public Programs, College of  
<http://spa.asu.edu>  
[spa@asu.edu](mailto:spa@asu.edu)  
 UCENT 400  
 602/496-450

**Urban Planning Minor (ARPUPMIN)**

**Description:** The planning minor introduces students to the field of urban planning. Students can select courses that include comprehensive planning, socioeconomic and environmental analysis, computer and analytical methods, planning law, site planning, urban design, and public-policy formulation and administration. 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.
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>

[geoplan@asu.edu](mailto:geoplan@asu.edu)

COOR 5673

480/965-7533

## Wellness Foundations Minor (ECWFNDMIN)

**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.
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:

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/wellness/undergraduate/index.htm>  
NEWHS@asu.edu  
EAW 109  
480/727-1945

## Women and Gender Studies Minor (LAWSTMIN)

**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/>

[wgs.asutempe@asu.edu](mailto:wgs.asutempe@asu.edu)

WHALL 205

480/965-2358

**Women's Studies Minor (ASWSTMIN)**

**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.

Students are required to choose three courses (nine credit hours) from the following core:

WST 100 Women and Society, SB, C (3) or WST 300 Women in Contemporary Society, SB, C (3)

WST 350 Race, Class and Gender, SB, C (3)

WST 376 Feminist Theory, L, C (3)



WST 457 Women, Cultures and Societies, SB, G (3) or WST 498 PS: Theory and Method in Women's Studies, L (3)

Additionally, students are required to select one course in three of the following four areas

- Applied women's studies.
- Gender studies.
- Global perspectives.
- Representation and culture studies.

#### Core Requirements

WST 100 Women and Society, SB, C (3) or WST 300 Women in Contemporary Society, SB, C (3)

Choose two of the following courses (6)

WST 350 Race, Class and Gender, SB, C (3)

WST 376 Feminist Theory, L, C (3)

WST 457 Women, Cultures and Societies, SB, G (3)

WST 498 PS: Theory and Method in Women's Studies, L (3)

#### Additional Requirements (9)

Select one course in three of the following four areas:

##### Global Perspectives Courses

WST 330 Women on the Borderlands (3)

WST 390 Women and World Religions, L/SB, G (3)

WST 475 Women of the Diaspora Across Cultures, HU, G (3)

WST 483 Women writers Across Cultures, HU, G (3)

WST 487 Gender and International Development, SB, G (3)

##### Representation and Culture Studies Courses

WST 320 Women in Popular Culture, HU, C (3)

WST 370 Chronicling Women's Lives, HU, C (3)

WST 431 Women and Film, L, G (3)

WST 467 Ethnic Women Writers, L/HU, C (3)

WST 473 Latina/Chicana Representation, SB, C

## Gender Studies Courses

WST 276 Feminist foundations: Going to the Sources, H (3)

WST 333 Critical Perspectives on Sexuality, SB, C (3)

WST 444 Women and Health, SB (3)

## Applied Women's Studies Courses

WST 482 Gender Issues in Education, (3)

WST 484 Internship, (3)

WST 485 Women, Gender and Leadership, SB, C (3)

WST 499 Individualized Instruction (3)

**Enrollment Requirements:** The minor in women's 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.

### Contact Information:

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts and Cultures

[http://newcollege.asu.edu/programs/womens\\_studies/minor\\_cert/](http://newcollege.asu.edu/programs/womens_studies/minor_cert/)

harcs.dept@asu.edu

FAB N201

602/543-4444

## Undergraduate Programs

### Undergraduate Certificates (Program Descriptions and Requirements)

#### African and African American Studies Certificate (LAAFRCERT)

**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/>

[aframstu@asu.edu](mailto:aframstu@asu.edu)

WILSN 140

480/965-4399

### **Arabic Studies Certificate (LAARBCERT)**

**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: speaking, listening, reading and writing. Simultaneously, students gain a broad knowledge and understanding of the culture, literature and traditions of the vast Arabic-speaking 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 least 12 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:

1. Name.
2. Address.
3. Phone number.
4. E-mail address.
5. Student ID number.
6. Major.
7. Year in college.
8. Anticipated graduation date.
9. 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>

[silc@asu.edu](mailto:silc@asu.edu)

LL 440

480/965-6281

### **Asian Pacific American Studies Certificate (LAAPACERT)**

**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: to think critically, 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, and to prepare students to participate in an increasingly diverse and global U.S. society.

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:** The certificate program requires 18 credit hours. Twelve core hours must be fulfilled by the following courses:

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) or APA 494 ST: Asian Pacific American Communities (3)

The remaining nine credit hours must be filled by courses from an approved list, including any additional courses with an APA prefix. Students must apply for the certificate program through the School of Social Transformation.

**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/>

[apas@asu.edu](mailto:apas@asu.edu)

WILSN 342

480/965-9711

### **Asian Studies Certificate (LAASNCERT)**

**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:

1. 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).
2. Nine additional credit hours may be some combination of lower- and/or upper-division courses.
3. 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 and 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](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](mailto:silcadvising@asu.edu) to schedule an appointment with an advisor.

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

### **Automotive Entrepreneurs and Leaders Certificate (BADMGCERT)**

**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., understanding consumers and human behavior, understanding the impact of sustainability on product development and demand chains, managing financing and cash flow, managing customer service operations and marketing efforts. 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 and 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 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: Sustainability in the Automotive Industry; Customer Service and Loyalty in the Automotive Industry; and Accounting and Finance in the Automotive Industry (3)

To complete the certificate, students select at least nine additional hours of business courses, including a three-credit-hour internship. 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:** Although classes are not closed to other students, 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  
<https://wpcarey.asu.edu>  
wpcareyug@asu.edu  
BA 109  
480/965-4227

### **Child Nutrition Certificate (ECNTRCERC)**

**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:

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu  
HSC 1386  
480/727-1728

### **Civic Education Certificate (LACVECERT)**

**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 Government, Politics and Global Studies

<http://spgs.clas.asu.edu>

COOR 6797

480/965-6551

### **Classical Studies Certificate (LACLG CERT)**

**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:



1. 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.
2. Four semesters (12 credit hours) in courses related to classical studies (to be approved by coordinator of the certificate).
3. 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 to contact the coordinator of the certificate before 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>

[silc@asu.edu](mailto:silc@asu.edu)

LL 440

480/965-6281

### Computer Gaming Certificate (ESSCICERT)

**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. The skill set includes game software development, art design and computer graphics for gaming, and architecture of game engines.

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 physical therapy, designing a game platform incorporating geographic information systems, creating an interactive virtual world for corporate training, inventing a surgical simulation to educate medical students, building a game that teaches linear algebra by incorporating trigonometric rules into the game design, or creating a game that teaches correct sentence construction to early English learners.

**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 form from the Registrar's Web site and submitting it to the School of Computing, Informatics and Decision Systems Engineering advising center. 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>

[cidse.advising@asu.edu](mailto:cidse.advising@asu.edu)

BYENG 553

480/965-3199

### **Convention Sales and Meeting Planning Certificate (PPTDMCERT)**

**Description:** The U.S. meetings, conventions and exhibitions industry generates over \$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:** A student must successfully pass all courses within the certificate by attaining at least a grade of "C" (2.00 on a 4.00 scale) or "Y" in all courses within the certificate. All five of the required courses must

be taken at ASU. Students will earn the certificate once the academic advisors have confirmed the completion of the required courses with satisfactory grades. This will be verified by the School of Community Resources and Development.

#### Required Course Work (15)

TDM 205 Introduction to Travel and Tourism, G (3)

TDM 345 Meeting and Convention Planning (3) (prerequisites: must have completed REC 305 or TDM 205 with a grade of "C" (2.00) or higher or be currently enrolled)

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)

PRM 486 Special Event Management (3)

**Enrollment Requirements:** Applications are accepted throughout the year. Please contact the department for more information.

To apply, please contact the school's academic advisor for an application form:

Academic Advisor School of Community Resources and Development

University Center (mail code: 4020)

411 N. Central Ave., Suite 550

Phoenix, AZ 85004-0690

Fax: 602-496-0953

Contact Information:  
Public Programs, College of

School of Community Resources and Development

<http://scrd.asu.edu>

[scrd@asu.edu](mailto:scrd@asu.edu)

UCENT 550

602/496-0550

#### **Creative City Certificate (PPURBCERC)**

**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 urban governance, land-use law, public art, planning, parks and recreation, community development, philanthropy 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 494 Urbanism: Placemaking 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 494 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 Public Affairs  
[http://spa.asu.edu/new/undergrad/creative\\_city.htm](http://spa.asu.edu/new/undergrad/creative_city.htm)  
spa@asu.edu  
UCENT 400  
602/496-0450

### **Dietetics Certificate (ECNTRCERD)**

**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:

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu  
HSC 1386  
480/727-1728

### East Asian Studies Certificate (LAEASCERT)

**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:

1. 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).
2. 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).
3. 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 and 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](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](mailto:silcadvising@asu.edu) to schedule an appointment with an advisor.

Contact Information:

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

## Entertainment and Technology Certificate (LAFMSUERE)

**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 studies. It certifies that the student has had the training to analyze industry changes over 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)

FMS 110 New Media, New Worlds (3)

FMS 200 Film History (3)

FMS 481 Entertainment Technologies (3)

FMS 482 Entertainment Industries (3)

FMS 483 Techno-Entertainment Convergences (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 department for more information and see <http://film.asu.edu/entertech>.

Contact Information:

Liberal Arts and Sciences, College of

<http://film.asu.edu/certificates>

[fmsinfo@asu.edu](mailto:fmsinfo@asu.edu)

LL 641

480/965-6747

## Environmental Humanities Certificate (LAENHCERT)

**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 are focused wholly or 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 upper-division.

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 334 The 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 315 Science, Values, and the Public (3)

ENG 371 Rhetoric of the Environmental Movement (3)

ENG 378 Environmental Creative Nonfiction (L/HU) (3)

ENG 468 Environmental Literary 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 about the 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/>

[englishadvising@asu.edu](mailto:englishadvising@asu.edu)

LL 542

480/965-3168

### **Ethics Certificate (LAETHCERT)**

**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 and (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 Studies for more information.

Contact Information:

Liberal Arts and Sciences, College of

Historical, Philosophical & Religious Studies

<http://shprs.clas.asu.edu/ethics>

[SHPRSadvising@asu.edu](mailto:SHPRSadvising@asu.edu)

COOR 3309

480/965-8364

### **Ethnic Studies Certificate (ASETHCERT)**

**Description:** 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.

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 "C" (2.00, on a scale of 4.00) or higher.

**Program Requirements:** The certificate in ethnic studies is open to all undergraduate majors. However, students should consult with the advisors in the division 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. For more information, visit [http://newcollege.asu.edu/programs/erfns/minor\\_cert/certificate.shtml/](http://newcollege.asu.edu/programs/erfns/minor_cert/certificate.shtml/).

**Enrollment Requirements:** The certificate program in ethnic studies explores the study of race and ethnicity in local and transnational contexts. Students take courses that introduce a general conceptual framework regarding race and ethnicity and how they intersect in the construction of social formations. Specifically, courses in the ethnic studies certificate are designed to:

1. Address theoretical, analytical and practical issues relevant to understanding race, culture, and ethnicity in American society from a comparative and interdisciplinary perspective.
2. Enhance the student's critical thinking and writing skills through the study of ethnicity in the U.S.
3. Develop more effective skills for working in diverse communities through integration of service-learning experiences and course content.

4. Create collaborations among faculty, students and community members to address concrete issues facing racial and ethnic groups in the United States.

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 United States. 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.

Contact Information:

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies

[http://newcollege.asu.edu/programs/erfns/minor\\_cert/certificate.shtml/](http://newcollege.asu.edu/programs/erfns/minor_cert/certificate.shtml/)

[harcs.dept@asu.edu](mailto:harcs.dept@asu.edu)

FAB N201

602/543-4444

### Film and Video Studies Certificate (ASVIDCERT)

**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 certificate in film and video studies 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 required for the minor.

**Enrollment Requirements:** The certificate in film and video 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.

Contact Information:

Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies

<http://newcollege.asu.edu/>

[harcs.dept@asu.edu](mailto:harcs.dept@asu.edu)

### **Geographic Information Science Certificate (LAGISCERT)**

**Description:** The geographical 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>

[geoplan@asu.edu](mailto:geoplan@asu.edu)

COOR 5673

480/965-7533

### **Hazardous Materials and Waste Management Certificate (TSETMCERT)**

**Description:** 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, the remainder of the courses may be taken in any sequence.

**Program Requirements:** Please contact the department for more information: <http://etmonline.asu.edu/>.

**Enrollment Requirements:** 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 ASU 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 certificate program for nondegree students, a B.S. in environmental technology management with a certificate in hazardous materials and waste management, and a M.S.Tech. with a certificate in hazardous materials and waste management.

Contact Information:

Technology and Innovation, College of

Dept of Tech Entrepreneurship and Innovation Mgmt

<http://etmonline.asu.edu/>

TECH 102

480/727-1781

### **History and Culture Certificate (ECHTYUERT)**

**Description:** The history and culture certificate encourages students to develop their historical awareness and their ability to use historical knowledge to make informed decisions. The program stresses cultural and information literacy. It encourages the study of historical events in their cultural context and stresses the role of media and technology in historical study. The philosophy of the program in history and culture that students should be offered an experience that integrates formal course work, independent and varied research, internships and service opportunities. The program goal is preparing independent and effective scholars and professionals who can transition seamlessly into careers in teaching, public policy, archival work and related fields and who are well prepared for graduate or further professional study.

**Program Requirements:** The certificate consists of 15-18 credit hours: nine credit hours of focus-area courses in their chosen track and six to nine credit hours of electives. Students must complete a minimum of 12 upper-division credit hours with a "C" (2.00) or better.

**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. Contact advisors in the School of Letters and Sciences for admission to the certificate program. See <http://sls.asu.edu/advising.html>.

Contact Information:

Letters and Sciences, School of

<http://sls.asu.edu/>

[sls@asu.edu](mailto:sls@asu.edu)

SANCA 230

480/727-1526

### **History and Philosophy of Science Certificate (LAHPSCERT)**

**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:**

1. The certificate requires 18 credit hours bearing a PHI or HPS prefix, of which 12 credit hours must be upper-division.
2. Within the 18 credit hours, at least nine must bear the HPS prefix.
3. PHI 314 Philosophy of Science is required.
4. 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/>

[sols.advising@asu.edu](mailto:sols.advising@asu.edu)

LSC 206

480/727-6277

### **Honors Business Modeling and Analysis Certificate (BAECNUERT)**

**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 critical thinking and problem solving, business judgment and conceptualization of strategic solutions.

**Program Requirements:** The program consists of at least 24 credit hours of course work distributed between economics and related fields as shown below. Only courses in which a student receives a grade of "C" (2.00 on a scale of 4.00) or higher may be used to meet the certificate requirements. Students must meet all pre-requisites and course requirements as listed in the catalog. At least 15 hours must be ASU credit.

Statistics (3 credit hours)

ECN 231 Honors Business Statistics

ECN 221 Business Statistics with a grade of "A-" (3.67) or higher

STP 226 Elements of Statistics with a grade of "A-" (3.67) or higher

Economic Theory (3 credit hours)

ECN 214 Honors Microeconomics

ECN 212 Microeconomics Principles with a grade of "A-" (3.67) or higher

ECN 312 Intermediate Microeconomics

Accounting (3 credit hours)

ACC 261 (ACC 303) Honors Fundamentals of Financial Accounting

ACC 231 (ACC 230) Uses of Accounting Information I with a grade of "A-" (3.67) or higher

ACC 315 Financial Accounting and Reporting

ACC 340 External Reporting I

Honors Business Core (6 credit hours)

Completion of at least 6 credit hours of approved 300-level honors business courses for which all prerequisites have been met. Approved courses include:

ECN 303 Honors Managerial Economics

FIN 303 Honors Finance

MKT 303 Honors Marketing Theory and Practice

MGT 303 Honors Organizational Strategies, Leadership and Behavior

SCM 303 Honors Global Supply Operations

Business Modeling and Analysis (3 credit hours)

SCM 415 (SCM 494) Business Decision Models

Honors Directed Study and Creative Project (6 credit hours)

WPC 492 Honors Directed Study for Business Modeling

WPC 493 Honors Creative Project for Business Modeling

**Enrollment Requirements:** The certificate in honors business modeling and analysis is limited to honors students in the W. P. Carey School of Business and honors students majoring in economics in the College of Liberal Arts and Sciences. Students must submit an application for admission. Please contact the department for more information and see <http://wpcarey.asu.edu/undergraduate/business-degrees/honors-modeling-analysis.cfm>.

Contact Information:  
Business, W. P. Carey School of

Department of Economics  
<http://wpcarey.asu.edu>  
[wpcareyug@asu.edu](mailto:wpcareyug@asu.edu)  
BA 109  
480/965-4227

### Human Rights Certificate (LAHRTSCERT)

**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 health, education, violence against women, child welfare, indigenous rights, labor rights, the environment, water and energy resources, and economic development.

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.

The certificate consists of foundational courses in global politics of human rights (three credits) and in human rights institutions and organizations (three credits), a choice of three electives (total of nine credits) from a set of approved courses in addressing states and conflict, social stratification and human rights, and marginalization and human rights, and a three credit experiential learning component (three credits), for a total of 18 credit hours. The experiential learning component may be an internship within the U.S. or abroad, or a research experience under the guidance of a member of the human rights certificate faculty.

Required Certificate Core Courses:

1. 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

2. 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

3. Interdisciplinary Component (9)

Students 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

4. 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 about the workings of organizations and institutions seeking to address human rights violation.

**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/>  
justiceinfo@asu.edu  
WILSN 125  
480/965-7682

### **Informatics Certificate (ESCPICERT)**

**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

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

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 the certificate will be attractive to such employers.

**Program Requirements:** This program requires 21 credit 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 & 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)

\*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 Web site. B.I.S. students need to contact 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>

[cidse.advising@asu.edu](mailto:cidse.advising@asu.edu)

BYENG 208

480/965-3199

### **International Business Studies Certificate (BAIBSCERT)**

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

- Provide an understanding of international business environments, principles and operations.
- Provide an awareness of global social processes.

- Develop sensitivity to foreign cultures.
- Develop competence in a foreign language.

Students seeking the certificate are strongly encouraged to obtain some international experience through study in a foreign country. 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.

At least nine credit hours of approved courses in international business are required. The upper-division courses specified for the certificate will be restricted to students with 56 earned credit hours, a minimum 2.50 ASU cumulative GPA and course prerequisite requirements met. Students must take either MGT 302 Principles of International Business or ECN 306 Survey of International Economics. Other international business courses from which the remaining hours are selected include:

ECN 306 Survey of International Economics, SB, G\* (3)

ECN 331 Alternative Economics Systems, SB, G\* (3)

ECN 360 Economic Development, SB, G\* (3)

ECN 365 Economics of Russia and Eastern Europe, SB, G\* (3)

ECN 436 International Trade Theory, SB, G\* (3)

ECN 438 International Monetary Economics, SB, G\* (3)

FIN 456 International Financial Management, G\* (3)

MGT 302 Principles of International Business, G\* (3)

MGT 400 Cross-Cultural Management\*, C, G (3)

MGT 459 International Management\*, G (3)

MKT 360 Seminar in International Business (3)

MKT 425 International Marketing (3)

SCM 463 Global Supply Chain Management (3)

\*W. P. Carey School of Business students may not use this course to fulfill the 60 credit hours in school general education degree requirements.

At least nine credit hours of nonbusiness global awareness hours are required. Any university-designated nonbusiness global awareness ("G") courses will meet this requirement.

To encourage participation in an international study experience, the nonbusiness global awareness hours may be satisfied by participating on an ASU or W. P. Carey School of Business education abroad program for one semester, which waives all nine credit hours of nonbusiness global requirements. Participation on an ASU or W. P.

Carey School of Business study tour or program of at least six weeks in duration waives six of the nine credit hours of nonbusiness global requirements.

**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

<http://wpcarey.asu.edu/>

wpcareyug@asu.edu

BA 109

480/965-4227

### **International Studies Certificate (LAINSCERT)**

**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)

POS 468 Comparative Asian Foreign Policies, 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 Government, Politics and Global Studies

<http://spgs.clas.asu.edu>

COOR 6797

480/965-6551

## Islamic Studies Certificate (LAISLCERT)

**Description:** Any student admitted to study at ASU is eligible 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:

1. 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.
2. Nine credit hours from REL 260 Introduction to Islam, REL 365 Islamic Civilization and REL 366 Islam in the Modern World.
3. Three upper division REL elective credit hours in courses that deal with Islam and/or Islamic studies (must be approved by the program coordinator).
4. Six elective credit hours in 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. Please contact the program coordinator, Mark Woodward, for more information.

Contact Information:

Liberal Arts and Sciences, College of

Historical, Philosophical & Religious Studies

<http://shprs.clas.asu.edu/islamic>

[Religious.Studies@asu.edu](mailto:Religious.Studies@asu.edu)

COOR 3309

480/965-8364

## Jewish Studies Certificate (LAJUDCERT)

**Description:** The Jewish studies program is designed with the following goals in mind: to examine the history and culture of the Jews, to provide a model for interdisciplinary teaching and research, to generate and facilitate research on Judaica, to provide the community with programs, courses, and research furthering the understanding of Judaica, and 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 candidates as early as possible in their program of study, and accomplish the following prior to graduation:

1. Formal declaration of intent through the submission of the Certificate in Jewish Studies Application.
2. Completion of at least seven courses in Jewish Studies, including two semesters of Hebrew language or equivalent approved courses.
3. One course in three of the following five areas:
  - o History.



- Humanities.
- Literature.
- Religious studies.
- Social studies.

4. Two courses of the student's choice in any Jewish studies related subject.

Petition for receipt of the certificate by notifying the Jewish studies office upon completion of courses.

**Enrollment Requirements:** Please contact the department for more information at <http://jewishstudies.clas.asu.edu/certificate>.

Contact Information:

Liberal Arts and Sciences, College of

<http://jewishstudies.clas.asu.edu/certificate>

Jewish-Studies@asu.edu

COOR 4465

480/727-6906

### **Latin American Studies Certificate (LALASCERT)**

**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 transborder Chicana/o and Latina/o 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 Web page for more information.

Contact Information:

Liberal Arts and Sciences, College of

<http://silc.asu.edu/undergraduate/certificates>

silc@asu.edu

LL 440

480/965-6281

### **Leadership and Ethics Certificate (PPLDECERT)**

**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:

1. 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.
2. 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.
3. Focus on understanding the broad interdisciplinary field of leadership and its application to various elements of society and community.

**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)

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://spa.asu.edu/new/undergrad/Certificate%20Request%20Form\\_PPLDECERT.pdf](http://spa.asu.edu/new/undergrad/Certificate%20Request%20Form_PPLDECERT.pdf).

#### 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>  
[spa@asu.edu](mailto:spa@asu.edu)  
UCENT 400  
602/496-0450

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

**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 <http://uc.asu.edu/advising/>. 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:

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

**Program Requirements:** The certificate requires 15 credit hours; a minimum of 12 must be upper division.

1. The two required courses are: Introduction to Lesbian, Gay, Bisexual, and Transgender Studies.
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 Web site for more information.

Contact Information:  
Public Programs, College of  
<http://uc.asu.edu/LGBT>  
UCENT 600  
480/965-4464

### Literature, Writing and Film Certificate (ECLWFUERT)

**Description:** The literature, writing and film certificate offers students the opportunity to develop their skills in professional, academic and imaginative writing, as well as their interpretation of literary and non-literary texts and critical thinking. The focus of the program is on effective writing, critical thinking and sophisticated reading of literary and non-literary texts. The program stresses cultural and information literacy. It encourages the study of texts in their cultural context and stresses the role of media and technology in the reading process. The philosophy of the program is that students should be offered an experience that integrates formal course work, independent and varied research, internships and service opportunities. The program goal is to prepare independent and effective scholars and professionals who can transition seamlessly into careers in writing and teaching and who are well prepared for graduate or further professional study.

**Program Requirements:** The certificate in literature, writing and film consists of 15-18 credit hours: nine credit hours of focus-area courses in their chosen track and six credit hours of electives. Students must complete a minimum of 12 upper-division credit hours with a "C" or better.

**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. Contact advisors in the School of Letters and Sciences for admission to the certificate program. See <http://sls.asu.edu/advising.html>.

Contact Information:  
Letters and Sciences, School of  
<http://sls.asu.edu/>  
[sls@asu.edu](mailto:sls@asu.edu)  
SANCA 230  
480/727-1526

### Medieval and Renaissance Studies Certificate (LAMRSCERT)

**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 to reflect the interdisciplinary nature of the field.

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).

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. Student 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 and a minimum of a "C" (2.00) average in all course work leading to the certificate.

**Enrollment Requirements:** Any student admitted to study at ASU may complete a certificate. Please contact the center for more information: [http://www.acmrs.org/web\\_pages/academic\\_programs/ac\\_pro\\_certificates.html](http://www.acmrs.org/web_pages/academic_programs/ac_pro_certificates.html).

Contact Information:

Liberal Arts and Sciences, College of

<http://www.asu.edu/clas/acmrs/>

acmrs@asu.edu

COOR 4426

480/965-5900

### **Nonprofit Leadership and Management: American Humanics Certificate (PPNPYCERT)**

**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.T
- he 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.

## Required Courses

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, which is taken four semesters, for one semester hour each term (4)

NLM 420 American Humanics Institute (2)

NLM 430 Managing Nonprofit Organizations (3)

NLM 463 Senior internship (12)

**Enrollment Requirements:** Applications are accepted throughout the year. Please see the department Web page for more information at <http://www.asu.edu/copp/nonprofit/edu/ah.htm>. To apply, contact:

Senior Program Coordinator

American Humanics

School of Community Resources & Development

University Center (mail code: 4020)

411 N. Central Ave., Suite 550

Phoenix, AZ 85004-0690

Phone: 602-496-0550

Fax: 602-496-0953

E-mail: [scrd@asu.edu](mailto:scrd@asu.edu)

Contact Information:  
Public Programs, College of

School of Community Resources and Development

<http://scrd.asu.edu>

[scrd@asu.edu](mailto:scrd@asu.edu)

UCENT 550

602/496-0550

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

**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 the department for more information.

Contact Information:

Honors - Barrett, The Honors College

<http://barretthonors.asu.edu/home>

SAGE 110

480/965-4033

### **Public Administration and Public Management Certificate (PPPAFCERT)**

**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

PAF 420 Public Leadership

PAF 460 Public Service Ethics

**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://spa.asu.edu/new/undergrad/Certificate%20Request%20Form\\_PPPAFCERT.pdf](http://spa.asu.edu/new/undergrad/Certificate%20Request%20Form_PPPAFCERT.pdf).

#### 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](http://spa.asu.edu/new/undergrad/pa_mgt.htm)  
[spa@asu.edu](mailto:spa@asu.edu)  
UCENT 400  
602/496-0450

### Religion and Conflict Certificate (LARELCERT)

**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](http://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, the certificate director.

Contact Information:

Liberal Arts and Sciences, College of

Historical, Philosophical & Religious Studies

[http://www.csrc.asu.edu/education/undergraduate\\_certificate.html/](http://www.csrc.asu.edu/education/undergraduate_certificate.html/)

[csrc@asu.edu](mailto:csrc@asu.edu)

WHALL 130

480/965-7187

### Russian and East European Studies Certificate (LAREECERT)

**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 entry-level 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.
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, Eurasian and 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  
<http://melikian.asu.edu/>  
[melikiancenter@asu.edu](mailto:melikiancenter@asu.edu)  
COOR 4448  
480/965-4188

### **Small Business and Entrepreneurship Certificate (BASMBCERT)**

**Description:** Students learn how to launch their own business or work with small or startup operations. Courses include small business and 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 see <http://wpcarey.asu.edu/undergraduate/current-students/academics/small-business-certificate.cfm>.

Contact Information:  
Business, W. P. Carey School of  
<https://wpcarey.asu.edu>  
[wpcareyug@asu.edu](mailto:wpcareyug@asu.edu)  
BA 109  
480/965-4227

### **Southeast Asian Studies Certificate (LASALCERT)**

**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 for professional programs in international law or business.

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 courses listed below. The curriculum includes:

ASB/GCU/HST/POS/REL 240 Introduction to Southeast Asia

ASB 325 Peoples of Southeast Asia

HST 391 Modern Southeast Asia

Two electives, selected from an approved course list.

**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

<http://www.asu.edu/clas/asian/>

SHPRSadvising@asu.edu

COOR 3309

480/965-8364

### **Spa Management Certificate (ECXWCERT)**

**Description:** The certificate in spa management was designed and implemented in response to a rapidly growing spa industry, which has identified a real need for more directors, assistant directors and supervisors, and for management candidates with formal education and training in spa administration.

**Program Requirements:** The spa management certificate program is a nondegree, 34-credit-hour program designed to prepare students for careers in spa administration. The required courses meet a comprehensive list of core competencies identified by the spa industry and an advisory committee of spa directors. The certificate in spa management was designed and implemented in response to a rapidly growing spa industry, which has identified a real need for more directors, assistant directors and supervisors, and for management candidates with formal education and training in spa administration. The International Spa Association recognizes this certificate, which significantly enhances a graduate's opportunity for placement and advancement within the industry.

The following are required courses, with a total of 34 credit hours:

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 380 Small Business Leadership (3)

EXW 322 Pro Seminar: Spa Management I (2)

EXW 323 Pro Seminar: Spa Management II (2)

EXW 325 Fitness for Life (3)

EXW 400 Stress Management for Wellness (3)

EXW 484 Exercise and Wellness Internship (6)

HHS 300 Overview of Complementary Health Systems (3)

NTR 345 Development of Healthy Cuisines (3)

OMT 494 Organizational Leadership (3)

Students must receive a grade of "C" (2.00) or higher in every course to earn the certificate. Any course in which a student fails to earn a "C" (2.00) or higher must be repeated.

**Enrollment Requirements:** Admission to the spa management certificate program is limited. Each applicant is evaluated based on a rubric that includes

- Years of higher education completed and cumulative GPA.
- Experience in the spa industry or a wellness-related field.
- Resume.
- Three references.
- Letter of intent.

Contact Information:

Nursing & Health Innovation, College of

<http://nursingandhealth.asu.edu/programs/wellness/undergraduate/index.htm>

wellness@asu.edu

EAW 109

480/727-1945

### **Special Events Management Certificate (HSRTMUERT)**

**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 of 21 credit hours, 15 credit hours of required core courses and six 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" (2.00) or higher. An application to the program is required.

Required Core Courses, for a total of 15 credits:

PRM 486 Special Event Management (3)

PRM 320 Talent/Entertainment Concepts (1)

PRM 321 Event Protocol/Ethics/Etiquette (1)

PRM 322 Special Event Programming (1)

PRM 323 Special Event On-site Operations (1)

PRM 324 Festival Site Design (1)

PRM 325 Working with Subcontractors and Vendors (1)

PRM 326 Sponsorship (summer only) (1)

PRM 327 Creative Revenue Production (summer only) (1)

PRM 328 Special Event Budgeting and Accounting (summer only) (3)

PRM 388 Business Practices for Special Event Management (summer only) (3)

(PRM 303 Program Planning has been removed)

Electives, for a total of six credits:

TDM 205 Introduction to Travel and Tourism (was RTM 373 Leisure Travel and Tourism) (3)

NLM 310 Volunteer Management (was RTM 453 Volunteer Management in Human Services) (3)

TDM 350 Tourism Marketing (was RTM 404 Marketing for Recreation and Tourism) (3)

TDM 345 Meeting and Convention Planning (3)

PRM 475 Entrepreneurial Recreation and Tourism (3)

PRM 487 Special Event Management Advanced (3)

**Enrollment Requirements:** Please contact the department for more information.

Contact Information:

Public Programs, College of

School of Community Resources and Development

<http://scrd.asu.edu>

[scrd@asu.edu](mailto:scrd@asu.edu)

UCENT 500

602/496-0550

### **Symbolic Systems Certificate (LAPHICERT)**

**Description:** The School of Historical, Philosophical and Religious Studies offers 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 and divided evenly between computer science and engineering, psychology and philosophy 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 undergraduates 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 the department for more information.

Contact Information:

Liberal Arts and Sciences, College of

Historical, Philosophical & Religious Studies

[http://shprs.clas.asu.edu/symbolic\\_systems](http://shprs.clas.asu.edu/symbolic_systems)

[SHPRSadvising@asu.edu](mailto:SHPRSadvising@asu.edu)

COOR 3309

480/965-8364

### **Technical Communication Certificate (ECTWCCERT)**

**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 department for more information.

Contact Information:

Letters and Sciences, School of

<http://sls.asu.edu/>

[sls@asu.edu](mailto:sls@asu.edu)

SANCA 230

480/727-1526

### Technology Entrepreneurship Certificate (ESTNECERT)

**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 completing 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.

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: <http://www.fulton.asu.edu/fulton/school/entrepreneurship/epobusiness.php>.

Contact Information:

Engineering, Ira A. Fulton Schools of  
[http://www.fulton.asu.edu/entrepreneurship/  
engineering@asu.edu](http://www.fulton.asu.edu/entrepreneurship/engineering@asu.edu)  
BYENG 696  
480/965-8211

### Translation Certificate (LSPACERT)

**Description:** The translation certificate program is designed to provide:

1. Advanced training required for professional translation in both public and private sectors.
2. Preparation for the rigorous examinations required by national and international agencies.
3. 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

1. SLC 401 Translation Theory and Practice (3)
2. 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).
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>

[silc@asu.edu](mailto:silc@asu.edu)

LL 440

480/965-6281

### **Women and Gender Studies Certificate (LAWSTCERT)**

**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/>

[wgs.asutempe@asu.edu](mailto:wgs.asutempe@asu.edu)

WHALL 205

480/965-2358

### **Women's Studies Certificate (ASWSTCERT)**

**Description:** The women's studies certificate consists of 18 credit hours of course work.

Students are required to choose three courses (nine credit hours) from the following core: WST 100 or WST 300; WST 350, WST 376, WST 457 or WST 498. Additionally, students are required to a select total of nine credit hours from courses in the following areas

- Global perspectives.
- Representation and culture studies.
- Gender studies.
- Applied women's studies.

Core Requirements

WST 100 Women and Society, SB, C (3) or WST 300 Women in Contemporary Society, SB, C (3)

Choose two of the following courses (6)

WST 350 Race, Class and Gender, SB, C (3)

WST 376 Feminist Theory, L, C (3)

WST 457 Women, Cultures and Societies, SB, G (3)

WST 498 PS: Theory and Method in Women's Studies, L (3)

Additional Requirements (9)

Select nine credit hours from three of the four following areas:

Global Perspectives Courses

WST 330 Women on the Borderlands (3)

WST 390 Women and World Religions, L/SB, G (3)

WST 475 Women of the Diaspora Across Cultures, HU, G (3)

WST 483 Women writers Across Cultures, HU, G (3)

WST 487 Gender and International Development, SB, G (3)

Representation and Culture Studies Courses

WST 320 Women in Popular Culture, HU, C (3)

WST 370 Chronicling Women's Lives, HU, C (3)

WST 431 Women and Film, L, G (3)

WST 467 Ethnic Women Writers, L/HU, C (3)

WST 473 Latina/Chicana Representation, SB, C

Gender Studies Courses

WST 276 Feminist foundations: Going to the Sources, H (3)

WST 333 Critical Perspectives on Sexuality, SB, C (3)

WST 444 Women and Health, SB (3)

Applied Women's Studies Courses

WST 482 Gender Issues in Education (3)

WST 484 Internship (3)

WST 485 Women, Gender and Leadership, SB, C (3)

WST 499 Individualized Instruction (3)

**Program Requirements:** The certificate in women's 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 and see [http://newcollege.asu.edu/programs/womens\\_studies/minor\\_cert/](http://newcollege.asu.edu/programs/womens_studies/minor_cert/).

**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/programs/womens\\_studies/](http://newcollege.asu.edu/programs/womens_studies/)  
[harcs.dept@asu.edu](mailto:harcs.dept@asu.edu)  
FAB N290  
602/543-4444

### **Writing (Liberal Arts and Sciences) Certificate (LAENGCERT)**

**Description:** The writing certificate is a declaration from ASU that a student has completed 19 credit hours of 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>  
[englishadvising@asu.edu](mailto:englishadvising@asu.edu)  
LL 542  
480/965-3168

### **Writing (New College) Certificate (ASWRTCERT)**

**Description:** Comprised of a minimum of 19 credit hours, the Writing Certificate Program combines intensive course work, of which at least 12 credit hours must be upper division, a possible internship, or a capstone project in the student's major and an exit portfolio. Several special aspects make it possible to combine these credits with general studies or major requirements.

**Capstone project:** A capstone writing project in the student's major (or AMS 498) or an approved course from the student's major.

**Exit portfolio:** Students will assemble a portfolio of writing that demonstrates their grasp of the skills presented during their course of studies, for which they will earn another credit hour.

**Program Requirements:** To gain admission to the Writing Certificate Program, 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 a program for students enrolled in any unit of any college at ASU leading to a certificate in nonfiction and disciplinary writing. 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.

Contact Information:  
Interdisciplinary Arts & Sciences, New College of

Division of Humanities, Arts, and Cultural Studies  
<http://newcollege.asu.edu/programs/>  
[harcs.dept@asu.edu](mailto:harcs.dept@asu.edu)  
FAB N201  
602/543-4444

# Undergraduate Programs

## Undergraduate Degrees (Program Descriptions) Business, W. P. Carey School of

### Accountancy, BS (BAACCBS)

**Program Description:** The accounting profession offers W. P. Carey students a dynamic environment and diverse career opportunities in public accounting, the private sector and in government agencies worldwide. The School of Accountancy's state-of-the-art curriculum provides students with technical expertise in the field and develops critical thinking, teaming, communication and information technology skills that are crucial for a successful career. The faculty includes leaders who excel in the classroom, and our professional advisory board provides regular guidance on continuous improvement and strategic planning. The School of Accountancy is accredited by the Association to Advance Collegiate Schools of Business International and is consistently ranked among the top programs in the nation in bachelors, master's and Ph.D. programs.

The 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 to students, including:

- 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 Web site.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** The major in accountancy includes the essential academic preparation for students who are:

- Pursuing professional careers in public, corporate and governmental accounting.
- Seeking positions in personal financial planning and portfolio analysis.
- Seeking positions in consulting; planning to operate their own businesses.
- Planning to pursue a graduate degree or attend law school.

The job outlook for accounting graduates is excellent. The U.S. Bureau of Labor Statistics' Occupational Outlook Handbook (2008-2009) states that, "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."

**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

**Contact Information:**

Business, W. P. Carey School of  
School of Accountancy  
<http://wpcarey.asu.edu/acc>  
[wpcareyacc@asu.edu](mailto:wpcareyacc@asu.edu)  
BA 223Q  
480/965-3631

**Agribusiness (Agribusiness Science), BS (AGAGBPBS)**

**Program Descriptions:** 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: Yes

Second Language Requirement: No

Minimum Math Requirement: 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:**

Business, W. P. Carey School of  
Morrison School of Agribusiness and Resource Mgmt  
PRLTA 330  
[morrisonsschool@asu.edu](mailto:morrisonsschool@asu.edu)  
480/727-1585

**Agribusiness (Global Agribusiness), BS (AGAGBGABS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: 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:**

Business, W. P. Carey School of  
Morrison School of Agribusiness and Resource Mgmt  
<http://morrison.asu.edu/>  
[morrison.school@asu.edu](mailto:morrison.school@asu.edu)  
PRLTA 330  
480/727-1585

**Agribusiness (Professional Golf Management), BS (AGAGBMBS)**

**Program Description:** The B.S. in agribusiness with a concentration in professional golf management is designed to prepare students for management careers in the golf industry. This program is appropriate for students who are skilled players and want to pursue a career on the player side of the business, such as a club professional. Students develop business skills and competencies while also becoming Professional Golfers' Association Class A professionals. This program may be submitting a request for an increase in the program fee amount.

Additional Program Fee: Yes

Second Language Requirement: No

**Career Opportunities:** Golf is a billion-dollar-a-year industry in Arizona. Nationwide, more than 400 new golf courses will be built annually in the next 10 years. As a result, management careers in the golf industry, such as club professional, are abundant and the salaries are attractive.

**Contact Information:**

Business, W. P. Carey School of  
Morrison School of Agribusiness and Resource Mgmt  
<http://morrison.asu.edu/>  
[morrison.school@asu.edu](mailto:morrison.school@asu.edu)  
PRLTA 330  
480/727-1585

**Business (Communication), BA (BABUSCBA)**

**Program Description:** The B.A. in business with concentration in communication is an innovative, interdisciplinary program intended to prepare students for positions in a variety of professions where 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.

**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.

**Contact Information:**

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

**Business (Global Politics), BA (BABUSGPBA)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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 public relations, information analysis, and campaign and issue management.

**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.

**Contact Information:**

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

**Business (Law), BA (BABUSLBA)**

**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 where 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 real-world 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: Yes



Second Language Requirement: No

**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  
<http://wpcarey.asu.edu>  
wpcareyug@asu.edu  
BA 109  
480/965-4227

**Business (Sustainability), BA (BABUSSBA)**

**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 where 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** Interest in sustainability issues is growing and, most likely, will be increasingly important to business in the next few years. Businesses all over 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.

**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:  
Maricopa County Community College District

**Contact Information:**

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

## Business (Tourism), BA (BABUSTBA)

**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 where 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.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.

**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: Maricopa County Community College District

### Contact Information:

Business, W. P. Carey School of

<http://wpcarey.asu.edu>

[wpcareyug@asu.edu](mailto:wpcareyug@asu.edu)

BA 109

480/965-4227

## Business (Urban Policy), BA (BABUSUBA)

**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 where 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.

**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: Maricopa County Community College District

**Contact Information:**

Business, W. P. Carey School of  
<http://wpcarey.asu.edu>  
[wpcareyug@asu.edu](mailto:wpcareyug@asu.edu)  
BA 109  
480/965-4227

**Business Exploratory, Pre-Prof/E (BABUSEXP)**

**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, or 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: No

Second Language Requirement: No

**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.

**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.

**Contact Information:**

Business, W. P. Carey School of  
Prebusiness Office  
<http://wpcarey.asu.edu>  
[wpcareyug@asu.edu](mailto:wpcareyug@asu.edu)  
BA 109  
480/965-4227

## Computer Information Systems, BS (BACISBS)

**Program Description:** In today's world, it is hard to find a business that is not dependent on computers. Investing in a degree that teaches you about the exciting and innovative ways that information technology is used to help organizations succeed will position you to potentially earn a high starting salary at graduation. Currently there is an acute 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:

- Application program development.
- Business process analysis.
- Databases and data modeling.
- Evidenced-based decision-making.
- Network deployment.
- Project management.
- Systems integration.
- The information value chain.

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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** A computer information systems degree offers job opportunities in a variety of industries, including entertainment, national defense, transportation, education, health care and finance. 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 database administrator, systems analyst, network administrator, project manager, systems administrator and consultant. Long-term career aspirations for a student with a computer information systems degree include chief information officer, chief technology officer, chief knowledge officer, chief security officer and chief executive officer.

**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

**Contact Information:**

Business, W. P. Carey School of  
Department of Information Systems  
<http://wpcarey.asu.edu/is>  
wpcareyis@asu.edu  
BA 301P  
480/965-3252

**Economics, BS (BAECNBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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 corporate economists who collect data and make forecasts relevant to the firm's business.
- As consultants who serve as advisers to state and federal governments as well as private corporations.
- In banking and financial services firms.

Each year many graduates pursue studies at some of the best graduate schools in the country.

**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

**Contact Information:**

Business, W. P. Carey School of  
Department of Economics  
<http://wpcarey.asu.edu/ecn>  
wpcareyecn@asu.edu  
BAC 659  
480/965-3531

**Finance, BS (BAFINBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.

**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

**Contact Information:**

Business, W. P. Carey School of  
Department of Finance  
<http://wpcarey.asu.edu/fin>  
[wpcareyfin@asu.edu](mailto:wpcareyfin@asu.edu)  
BAC 519  
480/965-3131

**Management, BS (BAMGTBS)**

**Program Description:** The B. S. in management prepares students to become effective managers and team leaders both by providing theoretical and conceptual knowledge and building critical skills such as communication, teamwork, personal ethics and integrity, critical thinking, analytical research and problem-solving, global applications and leadership.

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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.
- Growing technological sophistication.
- Racial, cultural and gender diversity in the workforce.
- The fast pace of e-business.
- The need for skills in communicating and working with people, directing projects and managing change.

Graduates with skills in these areas are likely to be recruited by management consulting firms, high-tech firms, service and manufacturing firms, for-profit and not-for-profit organizations, and large and small organizations.

**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

**Contact Information:**

Business, W. P. Carey School of  
Department of Management  
<http://wpcarey.asu.edu/mgt>  
[wpcareymgt@asu.edu](mailto:wpcareymgt@asu.edu)  
BA 323  
480/965-3431

### **Management (Entrepreneurship), BS (BAMGTEBS)**

**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 College of Design 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.

**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

**Contact Information:**

Business, W. P. Carey School of  
Department of Management  
<http://wpcarey.asu.edu/mgt>  
[wpcareymgt@asu.edu](mailto:wpcareymgt@asu.edu)  
BA 323  
480/965-3431

### Marketing, BS (BAMKTBS)

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.

**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

**Contact Information:**

Business, W. P. Carey School of  
Department of Marketing  
<http://wpcarey.asu.edu/mkt>  
[wpcareymkt@asu.edu](mailto:wpcareymkt@asu.edu)  
BAC 460  
480/965-3621

### Supply Chain Management, BS (BASCMBMS)

**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 students with an in-depth knowledge of integrated supply chain management. The curriculum focuses upon planning, procurement, negotiations, logistics, operations, execution systems and 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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 line manager.
- Production coordinator.
- Production scheduler.

- Quality control specialist.
- Supply management analyst.

**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

**Contact Information:**

Business, W. P. Carey School of  
 Department of Supply Chain Management  
<http://wpcarey.asu.edu/scm>  
[wpcarey.scm@asu.edu](mailto:wpcarey.scm@asu.edu)  
 BA 446  
 480/965-6044

## Design and the Arts, Herberger Institute for

### Architectural Studies, BSD (ARSTDBSD)

**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 School of Architecture and Landscape Architecture 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 - Precalculus

**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.

**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.

**Contact Information:**

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

## **Art (Art Education), BFA (FAARTEBFA)**

**Program Description:** The B.F.A. in art with a concentration in art education involves the study of art, policy making in art, how people learn about art and how instructors and administrators can best facilitate the teaching 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, studio, visual culture, development and context. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Students wishing to pursue art education or a studio art major apply to the ASU Herberger Institute School of Art and enter as art exploratory majors. There is no portfolio review process at the time of admission to ASU for freshmen. Students must complete a series of requirements, including successfully passing a portfolio review in order to be eligible for upper-division course work in the major. Students wishing to pursue art history, museum studies or art studies are considered for direct admission to the major.

Freshmen students applying to the Herberger Institute for Design and the Arts enter ASU as pre-art 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 must fulfill critical requirements to progress in their major.

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Art History), BA (FAARTHBA)**

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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:

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Art Studies), BA (FAARTSTDBA)**

**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 from 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates work in arts-related fields such as arts administration, service-related art fields and galleries. Career opportunities are also available with employers who seek graduates with a well-rounded humanities education.

**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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Ceramics), BFA (FAARTCBFA)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Students will be admitted to ASU as art exploratory majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper division coursework in the major.

Freshmen students applying to the Herberger Institute School of Art enter ASU as pre-art 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.

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Drawing), BFA (FAARTDBFA)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Students are admitted to ASU as art exploratory majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper-division course work in the major.

Freshmen students applying to the Herberger Institute School of Art enter ASU as pre-art 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.

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Fibers), BFA (FAARTFBFA)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 setup their own studios and design wearable or fabrics for interior use, while others make their living by doing commissioned work for interior spaces.

**Admission Requirements:** Students are admitted to ASU as art exploratory majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper-division course work in the major.

Freshmen students applying to the Herberger Institute School of Art enter ASU as pre-art 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.



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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Intermedia), BFA (FAARTIBFA)**

**Program Description:** The B.F.A. intermedia program is a conceptually driven program with an interdisciplinary approach to art-making. Students work with experimental studio practices, performance, and digital media to explore new avenues for self-expression, 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Career opportunities depend on the emphasis selected. Possibilities include independent artist, media consultant, videography, computer graphics and animation, museum or gallery installation, teacher, set designer and positions in the music/entertainment industry.

**Admission Requirements:** 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.

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Metals), BFA (FAARTMBFA)**

**Program Description:** The B.F.A. metals program offers a wide range of traditional and non-traditional approaches to metalworking, emphasizing craft skills, attention to detail, critical thinking and creativity. 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 workshops, lectures, visiting artists, internship possibilities, conferences and symposia, visits to artist studios, museums and exhibitions. ASU is located in proximity to numerous galleries and museums as well as local organizations such as the Arizona Designer Craftsmen, Metalink and the Arizona Artist-Blacksmith Association.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Students are admitted to ASU as art exploratory majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper-division course work in the major.

Freshmen students applying to the Herberger Institute School of Art enter ASU as pre-art 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.

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu/>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Museum Studies), BA (FAARTMSBA)**

**Program Description:** Museum studies students explore art history, art museums, art galleries and 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, small business, research, galleries and museums. Students must also demonstrate an ability to read at least one foreign language.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Museum studies graduates find employment possibilities in art galleries, art-based organizations and entry-level 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.

**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:

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 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.

**Contact Information:**

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School of Art  
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ART 102  
480/965-3468

### **Art (Painting), BFA (FAARTPABFA)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Students are admitted to ASU as pre-art majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper-division course work in the major.

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.

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 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.

#### **Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
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ART 102  
480/965-3468

### **Art (Photography), BFA (FAARTPHBFA)**

**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 coursework 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 university teaching, in history or studio areas, curatorial work in galleries, museums and historical collections and nonprofit arts organization management.

**Admission Requirements:** Students will be admitted to ASU as art exploratory majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper-division course work in the major.

Freshmen students applying to the Herberger Institute School of Art enter ASU as pre-art 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.

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art  
<http://art.asu.edu/>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
ART 102  
480/965-3468

**Art (Printmaking), BFA (FAARTPMBFA)**

**Program Description:** The B.F.A. printmaking program provides a complete studio experience with regular courses in intaglio, lithography, relief, screen-print, monotype, book arts, papermaking, and other graphic applications. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Students are admitted to ASU as art exploratory majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper-division course work in the major.

Freshmen students applying to the Herberger Institute School of Art enter ASU as pre-art 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.

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Art

<http://art.asu.edu/>

[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)

ART 102

480/965-3468

### **Art (Sculpture), BFA (FAARTSBFA)**

**Program Description:** The B.F.A. sculpture program recognizes the broadly encompassing interdisciplinary nature of sculpture today where a wide range of media now fall within an expanded definition of sculpture. Course work includes interactive and kinetic sculpture, video installation, neon, architectural sculpture, and foundry as well as more traditional forms of three dimensional expression including metal and wood. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Students are admitted to ASU as art exploratory majors. They must complete a series of requirements including successfully passing a portfolio review in order to be eligible for upper-division course work in the major.

Freshmen students applying to the Herberger Institute School of Art enter ASU as pre-art 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.

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 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.

**Contact Information:**

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

**Arts (BA in the Arts), BA (FAATSBA)**

**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: historical and theoretical studies in the arts, arts administration, digital culture or an individualized focus designed by the student and subject to approval by the institute's standards committee and the dean's office.

Additional Program Fee: No

Second Language Requirement: Students pursuing the historical and theoretical studies focus area must demonstrate foreign language proficiency. Remaining focus areas do not have a second language requirement.

Minimum Math Requirement: 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, public art specialists, media arts system developers, media arts educators, media arts authors and publishers, and museum curators and directors.

**Contact Information:**

Design and the Arts, Herberger Institute for  
[http://herbergerinstitute.asu.edu/degrees/ba\\_arts/](http://herbergerinstitute.asu.edu/degrees/ba_arts/)  
herbergeradvising@asu.edu  
CDS 101  
480/965-4495

## Dance, BFA (FADANBFA)

**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 degree 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 emphasizing movement and creative practices, artistic process, leadership and 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 teach and design curriculum, produce dance media for performance or instruction, direct or manage a performing arts company, studio or dance-related organization facilitate community partnerships, conduct research and write scholarly publications or work in technical theatre and dance production.

**Admission Requirements:** Effective Fall 2010

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/prospective/undergrad-apply-interview.php>.

The deadline for applying to ASU for admission to the dance program for fall 2010 was February 18, 2010.

Applications are no longer being accepted for fall 2010.

The deadline for applying to ASU for admission to the dance program for spring 2011 is November 18, 2010.



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:

1. The existence of parallel and equal courses in the college's curriculum.
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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

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

**Dance (Dance Education), BFA (FADANE BFA)**

**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. 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. 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. A comprehensive academic foundation prepares students to teach and design curriculum.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Effective Fall 2010

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/prospective/undergrad-apply-interview.php>.

The deadline for applying to ASU for admission to the dance program for fall 2010 was February 18, 2010. Applications are no longer being accepted for fall 2010.

The deadline for applying to ASU for admission to the dance program for spring 2011 is November 18, 2010.

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:

1. The existence of parallel and equal courses in the college's curriculum.
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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

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

### **Design Studies, BA (ARDSNBA)**

**Program Description:** The Bachelor of Arts in design studies is a four-year, non-studio program of study in design. 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: general design, design history and communication for 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: 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 design management, which offers a selection of courses in management and human communication that complement design.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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  
School of Architecture and Landscape Architecture  
[http://herbergerinstitute.asu.edu/degrees/ba\\_design/](http://herbergerinstitute.asu.edu/degrees/ba_design/)  
herbergeradvising@asu.edu  
CDS 101  
480/965-4495

### **Design Studies (Design Management), BA (ARDSNMBA)**

**Program Description:** The Bachelor of Arts in design studies is a four-year, non-studio program of study in design. 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: general design, design history and communication for 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: 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 design management, which offers a selection of courses in management and human communication that complement design.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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  
School of Architecture and Landscape Architecture  
[http://herbergerinstitute.asu.edu/degrees/ba\\_design/](http://herbergerinstitute.asu.edu/degrees/ba_design/)  
herbergeradvising@asu.edu  
CDS 101  
480/965-4495

### **Film (Film & Media Production), BA (FAFLMBA)**

**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 decision-making 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: No

Second Language Requirement: No

Minimum Math Requirement: 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 screenwriters, directors, cinematographers, editors or producers. 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.

**Admission Requirements:** All successful applicants interested in studying film in the Herberger Institute School of Theatre and Film begin their studies at ASU in the filmmaking practices concentration. All students complete the same 18-hour film core requirements in their first two years of study. There are no additional entrance requirements for the B.A. in film with a filmmaking practices concentration.

Students interested in pursuing the highly-selective studio-based film and media production concentration must achieve a 3.0 GPA or higher in the film core and a cumulative ASU GPA of 2.5 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.

**Contact Information:**

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

## Film (Filmmaking Practices), BA (FAFPRBA)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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.

### Contact Information:

Design and the Arts, Herberger Institute for  
School of Theatre and Film  
<http://theatrefilm.asu.edu>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
GHALL 232  
480/965-5337

## Graphic Design, BSD (ARGRABSD)

**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 Design Innovation offers the B.S.D. in graphic design.

Graphic designers are concerned with how communication is transferred and received, choosing the appropriate mechanism for distinctness, clarity of information and appearance. 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 its approved equivalent) at any point of entry.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Based on a very diversified portfolio upon graduation, students opting for the graphic design profession gain employment in brand and corporate identity, interaction and interface design, broadcast (TV graphics), museum/exhibitions, publication and advertising. Specific examples of graphic designers' work include environmental graphics, annual reports, publications, books, Web pages and multimedia presentations. 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  
School of Architecture and Landscape Architecture  
<http://herbergerinstitute.asu.edu/degrees/design.php>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
CDN 162  
480/965-8947

**Industrial Design, BSD (ARINDBSD)**

**Program Description:** Industrial designers are responsible for the design of products and systems that people use in their work, play and daily 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:

1. Meet user needs in unexpected ways.
2. Create value in the marketplace.
3. Improve society and the environment.

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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 - Precalculus

**Career Opportunities:** Graduates work for large corporations that have their own industrial design departments, such as automobile companies, computer hardware and/or software companies, consumer product companies and medical equipment companies. Opportunities also exist with consulting firms that design for a variety of different clients.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Architecture and Landscape Architecture  
<http://herbergerinstitute.asu.edu/degrees/design.php>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
CDN 162  
480/965-8947

**Interior Design, BSD (ARINTBSD)**

**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 to have useful, rich and rewarding contexts 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 its approved equivalent) at any point of entry.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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:**

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School of Architecture and Landscape Architecture  
<http://herbergerinstitute.asu.edu/degrees/design.php>  
herbergeradvising@asu.edu  
CDN 162  
480/965-8947

**Landscape Architecture, BSLA (ARPLABSLA)**

**Program Description:** Landscape architects are involved in the design, planning and management of the land. Landscape architects develop expertise in both the art of design and the environmental sciences. Landscape architecture students learn about:

- Bioengineering.
- Computer methods.
- Landscape construction.
- Planning and zoning law.
- Site planning.
- Urban design.

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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 - Precalculus

**Career Opportunities:** Graduates in landscape architecture are able to pursue career opportunities in private landscape architecture companies, government environmental planning and management agencies. Some landscape architects elect to pursue graduate degrees to develop specialty skills and to enhance their opportunities for career advancement.

**Contact Information:**

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

**Music, BA (FAMUSBA)**

**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; perception of differences; appreciation of art forms; beauty and symmetry; knowledge of theories; and principles of form, subsistency, 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.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice

major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

In addition to applying to ASU, you must also submit supplementary material to the School of Music in order to schedule an audition. More information on this process and deadlines can be found here: [http://music.asu.edu/students/prospective/undergrad/apply\\_SOM.php](http://music.asu.edu/students/prospective/undergrad/apply_SOM.php).

The deadline for applying to ASU for admission to a music program for fall 2010 was February 20, 2010. Applications are no longer being accepted for fall 2010.

The deadline for applying to ASU for admission to a music program for spring 2011 is November 15, 2010.

Students must select a different major when applying to ASU after these deadlines. Students may participate in the audition day held during their first semester at ASU. The School of Music will change their major to music if they pass the audition.

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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Music Education (Choral-General), BMus (FAMUSCBMUS)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 teach privately, perform in community and professional ensembles and work in music-related industries.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

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The deadline for applying to ASU for admission to a music program for fall 2010 was February 20, 2010. Applications are no longer being accepted for fall 2010.

The deadline for applying to ASU for admission to a music program for spring 2011 is November 15, 2010.

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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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

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School of Music

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[somadmissions@asu.edu](mailto:somadmissions@asu.edu)

MUSIC E167

480/965-3371

**Music Education (Instrumental), BMus (FAMUSIIBM)**

**Program Description:** The B.Mus. in music education (instrumental) program is designed for students interested in pursuing careers as teachers of instrumental (band, winds) music in the public schools. The degree program also prepares students for K-12 teaching certification.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 teach privately, perform in community and professional ensembles and work in music-related industries.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day



during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

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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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

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[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Music Education (String), BMus (FAMUSISBM)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 teach privately, perform in community and professional ensembles and work in music-related industries.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

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2. Departmental or school evaluation of studio and class piano courses with respect to performance standards.

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[somadmissions@asu.edu](mailto:somadmissions@asu.edu)

MUSIC E167

480/965-3371

**Music Therapy, BMus (FAMUSTHBM)**

**Program Description:** The B.Mus. in music therapy program instructs students in the mental-health/special-education profession that uses 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, songwriting, world music and popular music styles.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 for Music Therapy. Positions are available regionally and nationally in hospitals, schools, rehabilitation centers, nursing homes and other healthcare facilities. Career opportunities also include work in mental health, special education, physical rehabilitation and geriatric care. A music therapy career may also provide an opportunity for private practice with flexible hours.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day

during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

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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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Performance (Collaborative Piano), BMus (FAMUSPPBM)**

**Program Description:** The B.Mus. in performance with a concentration in collaborative piano offers private instruction, supervised ensemble work and ample opportunity for extensive 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 duo recitals with instrumental and voice colleagues, performances of great chamber music literature, work as rehearsal and pit pianists for the Lyric Opera Theater and concerts with large ensembles and choirs.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** A degree in the arts offers students a pathway to a rich and varied choice of careers. Career opportunities include professional performer, collaborative pianist or private studio of piano and/or collaborative piano. College-level teaching does require a graduate degree.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day

during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

In addition to applying to ASU, you must also submit supplementary material to the School of Music in order to schedule an audition. More information on this process and deadlines can be found here: [http://music.asu.edu/students/prospective/undergrad/apply\\_SOM.php](http://music.asu.edu/students/prospective/undergrad/apply_SOM.php).

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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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Performance (Guitar), BMus (FAMUSPGBM)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Career opportunities for graduates with a B.Mus. in performance with a concentration in guitar include, performing as a concert soloist or in chamber music ensembles, artist-in-residence interaction as part of school programs or state or community arts councils, for social functions, providing music for restaurants, clubs, resorts, churches and art galleries, recording and studio work and teaching privately or as part of a college or university program.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day

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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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

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MUSIC E167  
480/965-3371

**Performance (Jazz), BMus (FAMUSPJBM)**

**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 him- 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 performance, recording studios, film scoring, writing and arranging, contemporary composition, teaching jazz pedagogy and other related fields in the music industry.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are prepared to work in various professional capacities, including studio musician, jazz composer/arranger, freelance musician, accompanist, film scorer, professional recording artist and teacher.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day

during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

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Students must select a different major when applying to ASU after these deadlines. Students may participate in the audition day held during their first semester at ASU. The School of Music will change their major to music if they pass the audition.

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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

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480/965-3371

**Performance (Keyboard), BMus (FAMUSPKBM)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Career opportunities for graduates with a B.Mus. in performance with a concentration in keyboard include performing as a concert soloist or in chamber music ensembles; artist-in-residence interaction as part of school programs or state or community arts councils; for social functions; providing music for restaurants, clubs, resorts, churches and art galleries; recording and studio work; and teaching privately or as part of a college or university program.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

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1. The existence of parallel and equal courses in the college's curriculum.
2. Departmental or school evaluation of studio and class piano courses with respect to performance standards.

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School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Performance (Music Theatre), BMus (FAMUSPMBM)**

**Program Description:** The B.Mus in performance with a concentration in music theatre features workshops in music theatre performance techniques, and performances in various kinds of musical theatre. Students perform in up to five full productions every year, including every kind of music theatre. The program includes classes in techniques and skills specifically appropriate for music theatre, so 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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 national touring companies, in major opera houses, and/or at universities, colleges and schools.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day

during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

In addition to applying to ASU, you must also submit supplementary material to the School of Music in order to schedule an audition. More information on this process and deadlines can be found here: [http://music.asu.edu/students/prospective/undergrad/apply\\_SOM.php](http://music.asu.edu/students/prospective/undergrad/apply_SOM.php).

The deadline for applying to ASU for admission to a music program for fall 2010 was February 20, 2010. Applications are no longer being accepted for fall 2010.

The deadline for applying to ASU for admission to a music program for spring 2011 is November 15, 2010.

Students must select a different major when applying to ASU after these deadlines. Students may participate in the audition day held during their first semester at ASU. The School of Music will change their major to music if they pass the audition.

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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Performance (Orchestral Instrument), BMus (FAMUSPOBM)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Career opportunities for graduates with a B.Mus. in performance with a concentration in orchestral instruments include performing as a concert soloist or in chamber music ensembles, artist-in-residence interaction as part of school programs or state or community arts councils, for social functions, providing music for restaurants, clubs, resorts, churches and art galleries, recording and studio work, and teaching privately or as part of a college or university program.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.



Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

In addition to applying to ASU, you must also submit supplementary material to the School of Music in order to schedule an audition. More information on this process and deadlines can be found here:  
[http://music.asu.edu/students/prospective/undergrad/apply\\_SOM.php](http://music.asu.edu/students/prospective/undergrad/apply_SOM.php).

The deadline for applying to ASU for admission to a music program for fall 2010 was February 20, 2010. Applications are no longer being accepted for fall 2010.

The deadline for applying to ASU for admission to a music program for spring 2011 is November 15, 2010.

Students must select a different major when applying to ASU after these deadlines. Students may participate in the audition day held during their first semester at ASU. The School of Music will change their major to music if they pass the audition.

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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Performance (Voice), BMus (FAMUSPVBM)**

**Program Description:** The B.Mus. in performance with a concentration in voice 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Career opportunities for graduates with a B.Mus. in performance with a concentration in voice include performing as a concert soloist or in chamber music ensembles, artist-in-residence interaction as part of school programs or state or community arts councils, for social functions, providing music for restaurants, clubs, resorts, churches and art galleries, recording and studio work, and teaching privately or as part of a college or university program.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

In addition to applying to ASU, you must also submit supplementary material to the School of Music in order to schedule an audition. More information on this process and deadlines can be found here:

[http://music.asu.edu/students/prospective/undergrad/apply\\_SOM.php](http://music.asu.edu/students/prospective/undergrad/apply_SOM.php).

The deadline for applying to ASU for admission to a music program for fall 2010 was February 20, 2010. Applications are no longer being accepted for fall 2010.

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Students must select a different major when applying to ASU after these deadlines. Students may participate in the audition day held during their first semester at ASU. The School of Music will change their major to music if they pass the audition.

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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

Design and the Arts, Herberger Institute for

School of Music

<http://music.asu.edu>

[somadmissions@asu.edu](mailto:somadmissions@asu.edu)

MUSIC E167

480/965-3371

## **Theatre, BA (FATHEBA)**

**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: performance, design and production, new work development, theatre for youth, and theatre and performance studies. ASU offers well-equipped theatrical facilities including the Galvin Playhouse, the Lyceum Theatre, the Prism Theatre for student-production work, extensive and professionally staffed production shops and uniquely equipped rehearsal and instructional spaces.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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:

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 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.

**Contact Information:**

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

**Theatre (Acting), BA (FATHEABA)**

**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 theatre and performance studies, performance and directing, design and production, new work development, theatre for youth and film. ASU offers well-equipped theatre facilities including the Galvin Playhouse, the Lyceum Theatre, the Prism Theatre for student-produced work, extensive shops and uniquely equipped rehearsal and instructional spaces.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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:

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 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.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Theatre and Film  
<http://theatrefilm.asu.edu/>  
herbergeradvising@asu.edu

GHALL 232  
480/965-5337

### **Theatre (Design & Production), BA (FADSNPRBA)**

**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 well-equipped theatrical facilities including the Galvin Playhouse, the Lyceum Theatre, the Prism Theatre for student-production work, extensive and professionally staffed production shops and uniquely equipped rehearsal and instructional spaces.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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 BA 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:

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 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.

#### **Contact Information:**

Design and the Arts, Herberger Institute for  
School of Theatre and Film  
<http://theatrefilm.asu.edu/>  
[herbergeradvising@asu.edu](mailto:herbergeradvising@asu.edu)  
GHALL 232  
480/965-5337

### **Theory & Composition (Composition), BMus (FAMUSTCBM)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

Audition Days take place in November, January and February of each year. To ensure a smooth curricular progression, we strongly encourage all prospective music students, including transfer students to participate in the audition day during the semester prior to their intended date of enrollment. More information on the interview/audition process can be found at [http://music.asu.edu/students/prospective/undergrad/apply\\_Audition.php](http://music.asu.edu/students/prospective/undergrad/apply_Audition.php).

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Students must select a different major when applying to ASU after these deadlines. Students may participate in the audition day held during their first semester at ASU. The School of Music will change their major to music if they pass the audition.

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.
2. 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 semester hours in resident credit at ASU. Transfer students enrolled in the institute must complete a minimum of 15 semester hours of resident credit in the major as approved by the faculty.

**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

**Theory & Composition (Theory), BMus (FAMUSTTBM)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Effective Fall 2010

Students are admitted as music audition majors and must successfully complete an audition before enrolling in music courses. Because entrance into the School of Music is selective, you also will be asked to indicate your second choice major when you apply 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 at the time of application.

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**Contact Information:**

Design and the Arts, Herberger Institute for  
School of Music  
<http://music.asu.edu>  
[somadmissions@asu.edu](mailto:somadmissions@asu.edu)  
MUSIC E167  
480/965-3371

## Engineering, Ira A. Fulton Schools of

### Aerospace Engineering (Aeronautics), BSE (ESAEROBSE)

**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, propulsion, flight mechanics, and stability and control. Required astronautics topics include orbital mechanics, attitude control and 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 vehicle design and performance, vehicle and component analysis using computer-aided tools, wind-tunnel and flight testing, space mission design and analysis, propulsion engineering, aeronautical and space systems integration, material and structural design and configuration development.

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:

1. Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
2. Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
3. Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Mechanical and Aerospace Engineering Program  
<http://engineering.asu.edu>  
macme@asu.edu  
ECG 202  
480/965-2335

## Aerospace Engineering (Astronautics), BSE (ESAEASBSE)

**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 orbital mechanics, space environment, attitude determination and control, telecommunications, space structures, rocket propulsion, and gas dynamics, as well as elective topics in aeronautics. 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 vehicle design and performance, vehicle and component analysis using computer-aided tools, wind-tunnel and flight testing, space mission design and analysis, propulsion engineering, aeronautical and space systems integration, material and structural design, and configuration development.

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:

1. Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
2. Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
3. Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).



**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Mechanical and Aerospace Engineering Program  
<http://engineering.asu.edu/macme>  
macme@asu.edu  
ECG 202  
480/965-2335

**Bioengineering, BSE (ESBMEBSE)**

**Program Description:** Bioengineering 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 bioengineering, 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 will ethically and responsibly contribute to society, drawing from an integrated, multidisciplinary bioengineering education, focusing on sustainability and environmentalism.
- Who continue to develop technical knowledge, awareness and leadership abilities to address domestic or global issues in human health.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Harrington Bioengineering Program  
<http://engineering.asu.edu/bhse>  
sbhse@asu.edu  
ECG 334  
480/965-3028

**Chemical Engineering, BSE (ESCHEBSE)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** Chemical engineers have traditionally played a key role in industries as varied as petroleum, food, artificial fibers, petrochemicals, plastics, ceramics, primary metals, glass and 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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

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

**Civil Engineering, BSE (ESCEEBSE)**

**Program Description:** 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 office towers, factories, schools, roadway systems, bridges, airports, tunnels and subway systems, dams, canals and water purification facilities.

The faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. degree in civil engineering. 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 and water resources.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 in 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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Civil, Environmental and Sustainable Eng Program  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
ECG 252  
480/965-3589

**Civil Engineering (Construction Engineering), BSE (ESCEECBSE)**

**Program Description:** The faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. degree 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 office towers, factories, schools, roadway systems, bridges, airports, tunnels and subway systems, dams, canals and environmental protection facilities, such as solid waste and water treatment systems. In addition to construction engineering, the curriculum exposes students to other areas of civil engineering, including structures, geotechnical engineering, transportation, environmental engineering and water resources.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** ASU graduates with a B.S.E. in civil engineering with a concentration in construction 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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Civil, Environmental and Sustainable Eng Program  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
ECG 252  
480/965-3589

**Civil Engineering (Environmental Engineering), BSE (ESCEEBSE)**

**Program Description:** The faculty in the Ira A. Fulton Schools of Engineering offer a B.S.E. degree 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 the design and operation of water and wastewater treatment systems, remediation of contaminated soils and waters, construction of hazardous waste containment systems, analysis of the fate and transport of pollutants in natural environments, water conservation and reuse, air pollution technology, surface water quality management and application of sustainable practices in all areas of urban infrastructure. In addition to environmental engineering, the curriculum exposes students to other areas of civil engineering, including water resources, structures, geotechnical engineering and transportation.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Civil, Environmental and Sustainable Eng Program  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
ECG 252  
480/965-3589

## Computer Science, BS (ESCSEBS)

**Program Description:** Computer science professionals design, analyze and improve the quality of computer software and systems for a variety of applications, including Internet, graphics, artificial intelligence, security, multimedia, computer vision and information management. Examples of projects a computer scientist might work on include: next-generation computing systems, computer networking, database and information systems, software engineering, gaming systems, search engines, Web services and distribution processing systems.

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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 and 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:

- 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 demonstrated the ability of analyzing and solving complex technical problems from a broad perspective of computer science, including business, societal, and regulatory issues.
- Have functioned as both a leader and collaborative team member within different environments.
- Communicate effectively to all constituencies and uphold a commitment to professional and ethical conduct.
- Be engaged in lifelong learning to maintain currency in an ever-changing field, to innovate, and to attain professional advancement.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Computer Science and Engineering Program

<http://engineering.asu.edu/cidse>

[cidse.advising@asu.edu](mailto:cidse.advising@asu.edu)

BYENG 208

480/965-3199

## Computer Systems Engineering, BSE (ESCSEBSE)

**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 digital circuits, computer architecture, operating systems, networking, computer security, and distributed 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 individual digital components, embedded and ubiquitous systems, computer networks and high performance computer systems. 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.

Students pursuing this degree may concentrate their studies in information assurance.

Accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: 410-347-7700.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** Computer systems engineers are employed in industry, government, education and consulting and are concerned with the design, selection and installation of hardware and software components of a computer system.

Computer engineers often find themselves focusing on problems or challenges that result in new state-of-the-art products that integrate computer capabilities. They work on the manufacturing of computer hardware, from chips to device controllers, including computer networks for the transmission of data and multimedia, design, development, planning, supervision of manufacturing of computer hardware and testing.

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 systems and space vehicles.

Three to five years after graduation, the alumni of the B.S.E. degree in computer systems engineering will:

- 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 demonstrated the ability of analyzing and solving complex technical problems from a broad perspective of engineering, including business, societal, and regulatory issues.
- Have functioned as both a leader and collaborative team member within different environments.
- Communicate effectively to all constituencies and uphold a commitment to professional and ethical conduct.
- Be engaged in lifelong learning to maintain currency in an ever-changing field, to innovate, and to attain professional advancement.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:



1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Computer Science and Engineering Program  
<http://engineering.asu.edu/cidse>  
[cidse.advising@asu.edu](mailto:cidse.advising@asu.edu)  
BYENG 208  
480/965-3199

**Construction (Concrete Industry Management), BS (ESCONIMBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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:

- Field sales.
- Operations.
- Project and production management.
- Technical service.
- Concrete production.
- Cement.
- Advanced mixing technology or equipment manufacturing.
- Concrete or general contracting.
- Development.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Del E. Webb Construction  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
USE 138  
480/965-3615

**Construction (General Building Construction), BS (ESCONGBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Del E. Webb Construction  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
USE 138  
480/965-3615

**Construction (Heavy Construction), BS (ESCONHBS)**

**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, and 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 highways, airports, bridges, power plants, rapid transit systems, harbor and water facilities, pipelines, dams, tunnels, canals, sewerage systems and 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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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

2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Del E. Webb Construction  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
USE 138  
480/965-3615

**Construction (Residential Construction), BS (ESCONRBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and

3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Del E. Webb Construction  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
USE 138  
480/965-3615

**Construction (Specialty Construction), BS (ESCONSBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 mechanical, electrical, steel erection, control systems and others.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Del E. Webb Construction  
<http://engineering.asu.edu/sebe>  
sebe@asu.edu  
USE 138  
480/965-3615

**Electrical Engineering, BSE (ESEEEBSE)**

**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 systems, circuits, power, solid-state devices, electromagnetics and computer engineering. 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** Graduates with the B.S.E. in electrical engineering find many exciting opportunities in industry. These include semiconductor chip designers and manufacturers, electric power utilities, consulting companies, communication equipment and network providers, computers and peripheral devices manufacturers and defense organizations. The degree also prepares graduates for continued learning experiences, either in a formal graduate program or in continuing education applications.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Department of Electrical Engineering  
<http://engineering.asu.edu/ecee>  
askee@asu.edu  
GWC 205  
480/965-3424

**Electrical Engineering (Electric Power and Energy Systems), BSE (ESEEEP/BSE)**

**Program Description:** The goal of the electric power and energy systems concentration is to prepare graduates for positions in industries dealing with 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** Career opportunities for graduates with a concentration in electric power and energy systems include employment in utility companies, consulting engineer firms, power equipment manufacturers, state, federal, and municipal agencies, research and design organizations as well as entrepreneurial opportunities. This concentration will also prepare students to pursue graduate degrees in the areas of power systems, power generation and renewable and sustainable energy sources.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Department of Electrical Engineering  
<http://engineering.asu.edu/ecee>  
askee@asu.edu  
GWC 205  
480/965-3424

**Engineering Special Studies (Premedical Engineering), BSE (ESESPPBSE)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 research, aerospace and undersea medicine, artificial organs, prostheses, biomedical engineering or biophysics.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Engineering Special Studies Program



<http://engineering.asu.edu/bhse>  
sbhse@asu.edu  
ECG 334  
480/965-3028

## Industrial Engineering, BSE (ESIEEBSE)

**Program Description:** Industrial engineers design and manage complex systems in the manufacturing and service industries through the integration of people, processes, information, capital, materials, energy and equipment. 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 semiconductor manufacturing, automotive, aerospace, defense, banking, finance, transportation, health care, telecommunications, management consulting and government.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

### Contact Information:

Engineering, Ira A. Fulton Schools of  
Industrial, Systems & Operations Engineering Prgm

<http://ie.fulton.asu.edu>  
cidse.advising@asu.edu  
BYENG 208  
480/965-3199

## Materials Science & Engineering, BSE (ESMSEBSE)

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

### Contact Information:

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

## Mechanical Engineering, BSE (ESMAEMBSE)

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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:

1. Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
2. Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
3. Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.

**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, (<http://students.asu.edu/international-admission>) 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:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of

Mechanical and Aerospace Engineering Program

<http://engineering.asu.edu/macme>

[macme@asu.edu](mailto:macme@asu.edu)

ECG 202

480/965-2335

## **Mechanical Engineering (Computational and Mathematical Mechanics), BSE (ESMAECBSE)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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:

1. Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
2. Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
3. Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and

2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Mechanical and Aerospace Engineering Program  
<http://engineering.asu.edu/macme>  
macme@asu.edu  
ECG 202  
480/965-2335

**Mechanical Engineering (Energy & Environment), BSE (ESMAEEBSE)**

**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 energy efficiency, renewable energy, environmental sustainability, air pollution, climate change and other 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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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. 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:

1. Our graduates will be employed as engineers or will be enrolled in (or have graduated from) engineering or professional graduate school.
2. Our graduates will be sought out to contribute to the design of solutions to complex engineering problems.
3. Our graduates will demonstrate professionalism and will hold positions of increasing responsibility within their organizations.

**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), 213 (computer-based), 79 on iBT (Internet-based) or a minimum IELTS score of 6.5.

Freshman Admission:

1. 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
2. No high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

1. Minimum transfer GPA of 3.00 for less than 24 transfer hours, and
2. No high school math or science competency deficiencies, and
3. 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:

1. Minimum transfer GPA of 3.00 for 24 or more transfer hours, and
2. No high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

**Contact Information:**

Engineering, Ira A. Fulton Schools of  
Mechanical and Aerospace Engineering Program  
<http://engineering.asu.edu./macme>  
macme@asu.edu  
ECG 202  
480/965-2335

## Honors – Barrett, The Honors College

### Honors College, (9HOHONALL)

**Program Description: About the Honors Experience**

Barrett, The Honors College is a selective, residential college that recruits academically outstanding undergraduates. Named "Best Honors College" in the nation, this residential community has more National Merit Scholars than Stanford, MIT or Duke. Barrett students benefit from a \$10 million endowment used exclusively to support honors students and their projects. They also have the unique advantage of both experiencing a small, intellectually and socially vibrant environment, while having access to the vast resources of a major research university in ASU. They are members of a small community of scholars who benefit from the personalized attention, dedication and access to Barrett deans, roughly 25 faculty fellows and approximately 25 staff members. Barrett students are free to major in any field offered at any of the university's campuses. Vibrant honors communities are present on all four campuses, which include honors housing, academic and co-curricular experiences, and faculty and staff support. Barrett opened an extraordinary residential college campus on the Tempe campus in the fall of 2009 that underscores its standing as the premier honors college. Designed by students, faculty and staff working with nationally renowned architects, the new \$130 million Barrett Honors residential college is the nation's first comprehensive four-year residential honors college within a top-tier Research I university. The new eight-acre campus includes 1700 beds, 12 classrooms, a community center (with student lounges, activity rooms, computer labs and a fitness center); a dining center and signature refectory, café, all of the offices of the Barrett Faculty Fellows and administration.

**Program Requirements**

Barrett welcomes applications from 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 Web site: <http://barretthonors.asu.edu>. Barrett students complete a challenging honors curriculum through a combination of honors-only seminars, honors contracts, internships, research, honors study abroad and a culminating honors thesis or creative project. 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.

**Student Opportunities**

Barrett students take advantage of an array of opportunities that enrich the honors experience. They participate in study abroad programs that enable them to enjoy small classes taught by Barrett faculty and experience different cultures

while earning honors credits. Barrett students receive national and international graduate scholarships such as Rhodes, Truman and Marshall Scholarships; take advantage of unique undergraduate research and internship opportunities; attend social and cultural events; work in the governor's office; secure internships on Wall Street; publish poetry in the honors literary publication, LUX; meet with doctors from the Mayo clinic and work with professors in the Biodesign Institute on the latest developments in nanotechnology, to name only a few. They also benefit from spending significant time with individuals whose achievements are extraordinary in a given field. Whether listening to U.S. Supreme Court Justice Sandra Day O'Connor, enrolling in an honors class taught by former CNN anchor and Rhodes Lecturer-In-Residence, Aaron Brown, or attending a seminar with the annual Centennial and Rhodes lecturers, Barrett students are provided with exceptional opportunities to engage with experts in multiple disciplines.

Additional Program Fee: Yes

Second Language Requirement: No

**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:

High school GPA (Arizona Board of Regents GPA based on 16 competency courses).

High school class rank.

Performance on the SAT or ACT.

Talents that contribute to leadership and community service.

Continuing ASU or transfer students are evaluated on their college GPA. Please contact the Honors College for more information.

**Contact Information:**

The Barrett Honors College  
<http://barretthonors.asu.edu/>  
SAGE 101  
480/965-4033

## Journalism, Walter Cronkite School of

### Journalism & Mass Communication, BA (CSJMCBA)

**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: Yes

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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:

1. Have a 3.00 (4.00 = A) ABOR GPA;
2. Have no English competency deficiencies; and
3. 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](http://cronkite.asu.edu/undergrad/xfer_major_change.php).

**Contact Information:**

Journalism, Walter Cronkite School of  
Walter Cronkite School of Journalism & Mass Comm  
<http://cronkite.asu.edu>  
[cronkiteadvising@asu.edu](mailto:cronkiteadvising@asu.edu)  
CRONK 302  
602/496-5555

## Letters and Sciences, School of

### Applied Science (Technical Communication), BAS (LSTECBAS)

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** The Bureau of Labor Statistics estimates the need for writers and editors will increase by 25 percent over 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.

**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.



**Contact Information:**

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

**General Studies, BGS (LSGNSBGS)**

**Program Description:** The Bachelor of General Studies with a major in 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 or 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.
- Higher education.
- Hospitality.
- Marketing.
- Media.
- Nonprofit administration.
- Sales.
- The helping professions.
- Tourism.

**Contact Information:**

Letters and Sciences, School of  
<http://sls.asu.edu/>  
UCENT 300  
602/496-4000

**History & Culture, BA (ECHSTCULBA)**

**Program Description:** The B.A. in history and culture focuses on public policy, archival work, Southwest history and related fields. Three degree tracks are available:

- Environmental history and culture.
- History and culture of the American Southwest.
- History for secondary teachers.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The B.A. in history and culture prepares scholars and teachers for graduate or professional study 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 the 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

<http://sls.asu.edu/>

sls@asu.edu

SANCA 230

480/727-1526

### Interdisciplinary Studies, BIS (LSBISBIS)

**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 advisor, students choose from and combine two of more than 100 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 track).
- 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/programs/> or e-mail [sls@asu.edu](mailto:sls@asu.edu).

Students from western states who select this major at the Polytechnic campus may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** Because of the flexibility of the B.I.S. degree, B.I.S. 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.

**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.

**Contact Information:**

Letters and Sciences, School of  
<http://sls.asu.edu/>  
bis@asu.edu  
USAB 203  
480/965-1970

**Interdisciplinary Studies (Management Communication), BIS (LSMGTCBIS)**

**Program Description:** Applications for this degree program are not currently being accepted.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Admission Requirements:** Students who have completed at least 30 hours of transferable college coursework and meet (<http://students.asu.edu/transfer-admissions-information>) minimum university transfer admission requirements are eligible for admission; first-time freshman are not eligible.

**Contact Information:**

Letters and Sciences, School of  
<http://sls.asu.edu/>  
sls@asu.edu  
UASB 203  
480/965-1970

**Interdisciplinary Studies (Organizational Studies), BIS (LSORGBIS)**

**Program Description:** 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 a breadth of knowledge and experience, and by acquiring the skills to integrate various domains of knowledge, organizational studies 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 and meaningful, and affords the opportunity for continued career development and advancement.

Additional Program Fee: No

Second Language Requirement: No

**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  
<http://sls.asu.edu/>  
bis@asu.edu  
UCENT 300  
602/496-0356  
Liberal Studies, BLS (LABLSBLS)

**Liberal Studies, BLS (LABLSBLS)**

**Program Description:** The B.L.S. is an online program that students can complete via the internet 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 <http://sls.asu.edu>.

Additional Program Fee: No

Second Language Requirement: No

**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  
<http://sls.asu.edu/>  
BLS@asu.edu  
SANCA 251F  
480/727-5398

**Literature, Writing & Film, BA (ECLWFBA)**

**Program Description:** The B.A. in literature, writing and film focuses on effective writing, critical thinking and sophisticated reading of literary and nonliterary texts. Three degree tracks are available:

- English for secondary teachers.
- Writing.
- Literature and film

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The B.A. in literature, writing and film program 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  
<http://sls.asu.edu/>  
 sls@asu.edu  
 SANCA 230  
 480/727-1526

**Science, Technology and Society, BS (ECSTSBS)**

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The bachelor's degree in science, technology and society prepares professionals and scholars for careers in the twenty-first 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 for graduate or professional study, or professional careers in:

- Business.
- Education.
- Government.
- Law.
- Nonprofit organizations.

**Contact Information:**

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

## Technical Communication, BS (LSTECBS)

**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.

Students from western states who select this major at the Polytechnic campus may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The Bureau of Labor Statistics estimates the need for writers and editors will increase by 25 percent over 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  
<http://sls.asu.edu/>  
sls@asu.edu  
SANCA 230  
480/727-1526

## Liberal Arts and Sciences, College of

### African & African American Studies, BA (LAAFRBA)

**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 the United States, Africa, the Caribbean, South America and Central America. As an institutional program, AAAS is structured to:

1. Prepare students of all ethnicities to better understand, value and more effectively participate in our increasingly diverse society.
2. Combine knowledge of the African diaspora with intellectual and practical training in specific areas to create more effective communities and global partnerships.
3. 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Because of its emphasis on various social aspects and groups, AAAS provides students with practical applications useful for various work places. The minor requirement of AAAS helps students develop cultural sensitivity and prepares them for careers in administration, advertising, counseling, travel, business, international relations, justice, journalism, human resources, management and education. 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 and many more.

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Social Transformation

<http://aaas.clas.asu.edu/>

[aframstu@asu.edu](mailto:aframstu@asu.edu)

WILSN 140

480/965-4399

### American Indian Studies, BS (LAAISBS)

**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: legal, policy and community and economic development, and 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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/>

[AIS@asu.edu](mailto:AIS@asu.edu)

DHALL 356

480/965-3634

### Anthropology, BA (LAASBBA)

**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 such as research, teaching, public service, advocacy and business. It provides students with practical skills, examples of which are record keeping, attention to details, analytical and critical reading, careful observation, and map making. 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.

Undergraduate majors in anthropology are encouraged to take a well-rounded course of study that includes practical career-skill courses in such areas as foreign languages, computers, business and justice studies. When combined with additional, complementary course work, anthropology provides a strong basis for subsequent graduate-level education or training in other fields such as medicine, public health, international law, law enforcement, urban planning and business.

A special feature of the ASU anthropology program is its relevance to other disciplines, including:

- Applied mathematics.
- Architecture.
- Area or cultural group studies.
- Biology.
- Community planning.
- Economics.
- Fine arts.
- Global studies.
- Law.
- Medicine.
- Public health.
- Psychology.
- Religious studies.
- Sociology.

Anthropology provides many exciting hands-on learning opportunities through laboratories and field-based courses that focus on:

- Finding ancient human fossils.
- Unearthing buried cities, villages and hunter-gatherer camps.
- Understanding health, disease and human biology.
- Appreciating the languages and cultures of such diverse areas as Southeast Asia, the South Pacific, Latin America and the Mediterranean Basin.
- Many other topics that explore humans of the past and present.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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. The B.A. in anthropology is beneficial and useful for careers in areas such as:

- Postgraduate academic research and teaching.
- Consulting for large and small private and public organizations.
- Directing programs in the private or public sector.
- Providing healthcare as nurses, doctors or public or global health professionals.
- Analyzing and proposing policies.
- Acting as legal advocates in international cases.
- Curating cultural resources.
- Planning communities.



- Directing nonprofit organizations.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of  
 School of Human Evolution & Social Change  
[http://shesc.asu.edu/undergraduate\\_studies](http://shesc.asu.edu/undergraduate_studies)  
[shesc.undergrad@asu.edu](mailto:shesc.undergrad@asu.edu)  
 SHESC 233  
 480/965-6215

**Applied Mathematics for Life and Social Sciences, BS (LAAMLBS)**

**Program Description:** The Bachelor of Science 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. Students acquire a life-long learning philosophy that will prepare students to become first-rate scientists and important agents of change in the shrinking global village.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** The applied mathematics for the life and social sciences Bachelor of Science 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](http://shesc.asu.edu/undergraduate_studies)  
[shesc.undergrad@asu.edu](mailto:shesc.undergrad@asu.edu)  
 SHESC 233  
 480/965-6215

**Asia Studies (East Asia), BA (LAHSTEABA)**

**Program Description:** The interdisciplinary B.A. in Asia studies offers students the opportunity to study South, 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 and Taiwan.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** People knowledgeable about Asia will be required in virtually every arena in which America interacts with the rest of the world, including diplomacy, law, trade, journalism, higher education, tourism, technology transfer, food security, philanthropy, humanitarian service, transportation, communication, international organizations, law enforcement, intelligence and the military.

**Contact Information:**

Liberal Arts and Sciences, College of  
 Historical, Philosophical & Religious Studies, Sch  
[http://shprs.clas.asu.edu/ba\\_asia](http://shprs.clas.asu.edu/ba_asia)  
[SHPRSadvising@asu.edu](mailto:SHPRSadvising@asu.edu)  
 COOR 3309  
 480/965-8364

**Asia Studies (South Asia), BA (LAHSTSABA)**

**Program Description:** The interdisciplinary B.A. in Asia studies offers students the opportunity to study South, 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 India, Pakistan, Bangladesh and other South Asian states and societies.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** People knowledgeable about Asia will be required in virtually every arena in which America interacts with the rest of the world, including diplomacy, law, trade, journalism, higher education, tourism, technology transfer, food security, philanthropy, humanitarian service, transportation, communication, international organizations, law enforcement, intelligence and the military.

**Contact Information:**

Liberal Arts and Sciences, College of  
Historical, Philosophical & Religious Studies, Sch  
[http://shprs.clas.asu.edu/ba\\_asia](http://shprs.clas.asu.edu/ba_asia)  
SHPRSadvising@asu.edu  
COOR 3309  
480/965-8364

**Asia Studies (Southeast Asia), BA (LAHSTSEABA)**

**Program Description:** The interdisciplinary B.A. in Asia studies offers students the opportunity to study South, 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 Burma/Myanmar, Thailand, Laos, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, East Timor, and the Philippines.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** People knowledgeable about Asia will be required in virtually every arena in which America interacts with the rest of the world, including diplomacy, law, trade, journalism, higher education, tourism, technology transfer, food security, philanthropy, humanitarian service, transportation, communication, international organizations, law enforcement, intelligence and the military.

**Contact Information:**

Liberal Arts and Sciences, College of  
Historical, Philosophical & Religious Studies  
[http://shprs.clas.asu.edu/ba\\_asia](http://shprs.clas.asu.edu/ba_asia)  
SHPRSadvising@asu.edu  
COOR 3309  
480/965-8364

**Asian Languages - Chinese, BA (LACHIBA)**

**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 culture of Chinese-speaking societies. These texts include visual and written materials on, among other things, media, linguistics, urban culture, literary theory and history, and religions. Students in the program have a number of options available for study 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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>  
silcadvising@asu.edu  
LL 440  
480/965-6281

### **Asian Languages - Japanese, BA (LAJPNBA)**

**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 Japanese history, art, religion, government, literary and cultural theory and linguistics. In addition, ASU offers summer or yearlong overseas programs to study Japanese.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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 United States 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>  
silcadvising@asu.edu  
LL 440  
480/965-6281

### **Asian Pacific American Studies, BA (LAAPABA)**

**Program Description:** The Bachelor of Arts 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 Southwest U.S., nationally and internationally. Students will study both the historical and contemporary experiences of Asian Americans and Pacific Islanders (AAPIs), and gain knowledge about AAPI experiences and communities in Arizona and nationally, and within a larger global context.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: 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, law, immigration, community organizations, journalism, health, education and creative arts.

#### **Contact Information:**

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

## Biochemistry, BA (LABCHBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**Career Opportunities:** A solid undergraduate education in biochemistry provides the necessary background for career paths in research, teaching, health care, chemical industries, government 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>  
[chmugadv@asu.edu](mailto:chmugadv@asu.edu)  
PSD 102  
480/965-3461

## Biochemistry, BS (LABCHBS)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** A solid undergraduate education in biochemistry provides the necessary background for career paths in research, teaching, health care, chemical industries, government 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>  
[chmugadv@asu.edu](mailto:chmugadv@asu.edu)  
PSD 102  
480/965-3461

## Biochemistry (Medicinal Chemistry), BS (LABCHMBS)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** A solid undergraduate education in biochemistry provides the necessary background for career paths in research, teaching, health care, chemical industries, government 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>

[chmugadv@asu.edu](mailto:chmugadv@asu.edu)

PSD 102

480/965-3461

### Biological Sciences, BS (LABSCBS)

**Program Description:** The B.S. in biological sciences is designed for students who desire a broad background in many areas of biology or who want to postpone selection of a concentration until graduate school. Biological sciences encompasses the study of all living things (microbes, plants and animals), and includes the study of basic organization and function (molecules, cells, tissues, organs), how organisms evolve, their roles in the natural environment, how hereditary information is transferred and the development of biotechnology.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**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://www.asu.edu/programs/concurrentdegrees/BAE\\_BS\\_BioSciences.html](http://www.asu.edu/programs/concurrentdegrees/BAE_BS_BioSciences.html).

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Life Sciences

<http://sols.asu.edu/>

[sols.advising@asu.edu](mailto:sols.advising@asu.edu)

LSC 206

480/727-6277

### Biological Sciences (Animal Physiology & Behavior), BS (LABSCABS)

**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 graduate-level study in physiology, neuroscience and animal behavior; professional school in health professions; or careers in basic and biomedically oriented research.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**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.

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Life Sciences  
<http://sols.asu.edu/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
LSC 206  
480/727-6277

**Biological Sciences (Biology & Society), BS (LABSCSBS)**

**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.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**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 history and philosophy of science, genetics or counseling psychology. Other graduates work in genetic counseling, health policy and international disease studies and prevention.

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Life Sciences  
<http://sols.asu.edu/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
LSC 206  
480/727-6277

**Biological Sciences (Conservation Biology & Ecological Sustainability), BS (LABSCCBS)**

**Program Description:** The conservation biology and ecological sustainability concentration in the B.S. in biological sciences is designed to provide students with a broad background in conservation biology and ecological sustainability, 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.
- Urban ecology.
- Social and historical aspects of conservation.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**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:

- Government.
- Education.
- Nongovernmental organizations.
- Industry.
- Technical fields.

**Contact Information:**

Liberal Arts and Sciences, College of  
 School of Life Sciences  
<http://sols.asu.edu/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
 LSC 206  
 480/727-6277

**Biological Sciences (Ecology & Evolution), BS (LABSCEBS)**

**Program Description:** The ecology and evolution concentration in the B.S. in biological sciences is designed to provide training in:

1. The ecology, evolution and behavior of organisms.
2. The diversity and systematic relationships among species and change in these relationships through time.
3. The responses of organisms and ecological systems to human activity and environmental change.

Evolution forms the foundation for understanding everything in the biological sciences, while ecology examines the interaction of organisms with their environment.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**Career Opportunities:** Students graduating with this degree are broadly trained and well prepared for admission into graduate programs and professional schools. 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/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
 LSC 206  
 480/727-6277

**Biological Sciences (Genetics, Cell & Developmental Biology), BS (LABSCGBS)**

**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 in the health professions.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**Career Opportunities:** Students graduating with this degree are well prepared for admission into graduate programs and professional schools (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/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
 LSC 206  
 480/727-6277

**Biological Sciences (Genomics & Bioinformatics), BS (LABSCBBS)**

**Program Description:** The genomics and bioinformatics concentration in the B.S. in biological sciences is intended for students interested in a flexible curriculum focused on modern genome science. This concentration will prepare students for careers in basic and biomedically oriented research or professional training in the health professions.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**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:

- Education.
- Government.
- Industry.
- Technical fields.

**Contact Information:**

Liberal Arts and Sciences, College of  
 School of Life Sciences  
<http://sols.asu.edu/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
 LSC 206  
 480/727-6277

**Biological Sciences (Plant Biology), BS (LABSCPBS)**

**Program Description:** The plant biology concentration in the B.S. in biological sciences program is designed to provide breadth for students interested in all aspects of plant biology, including:

- Anatomy.
- Cellular.
- Developmental.
- Ecology.
- Evolution.
- Evolution.
- Molecular.
- Morphology.
- Physiology.
- Systematics.

The concentration provides elective courses that permit students to further focus their education in these areas of specialization. One area is primarily for students interested in plant diversity, ecology and evolution, or other aspects of

organismal biology; the other is appropriate for students interested in genetics and genomics, and cellular, molecular and developmental plant biology.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**Career Opportunities:** Students graduating with this degree are broadly trained and well prepared for admission into graduate programs, specimen-based collections research, and conservation and resource management agencies. 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/>

[sols.advising@asu.edu](mailto:sols.advising@asu.edu)

LSC 206

480/727-6277

### Chemistry, BA (LACHMBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**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>

[chmugadv@asu.edu](mailto:chmugadv@asu.edu)

PSD 102

480/965-3461

### Chemistry, BS (LACHMBS)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**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://www.asu.edu/programs/concurrentdegrees/BAE\\_BS\\_Chemistry.html](http://www.asu.edu/programs/concurrentdegrees/BAE_BS_Chemistry.html).

**Contact Information:**

Liberal Arts and Sciences, College of  
Department of Chemistry and Biochemistry  
<http://chemistry.asu.edu>  
[chmugadv@asu.edu](mailto:chmugadv@asu.edu)  
PSD 102  
480/965-3461

### **Chemistry (Environmental Chemistry), BS (LACHMEBS)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**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>  
[chmugadv@asu.edu](mailto:chmugadv@asu.edu)  
PSD 102  
480/965-3461

### **Communication, BA (LACOMBA)**

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of  
Hugh Downs School of Human Communication

<http://humancommunication.clas.asu.edu/>  
communication@asu.edu

STA 412

480/965-5095

### **Communication, BS (LACOMBS)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

**Computational Mathematical Sciences, BS (LACMSBS)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (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/>  
 math@asu.edu  
 PSA 211  
 480/965-7195

**Earth & Space Exploration, BS (LASESBS)**

**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 strong quantitative preparation, a learning community that includes both science and engineering students, and a yearlong collaborative capstone senior

exploration project. This strong foundation in geosciences, astrophysics and exploration engineering will prepare students for key roles in space research and industry, environmental and geologic engineering, earth resources and exploration, and water and environmental use policy.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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 the public sector.

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Earth and Space Exploration

<http://sese.asu.edu>

[seseinfo@asu.edu](mailto:seseinfo@asu.edu)

PSF 686

480/965-5081

### **Earth and Environmental Studies, BA (LAEESBA)**

**Program Description:** The Bachelor of Arts 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 Earth's water, energy and material resources, climate change, the impacts of land-use change on human civilization, and the 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 reporting, public planning, environmental consulting and natural resource management. In addition, graduates can continue with graduate studies in education, journalism, law, public policy and environmental management.

Additional Program Fee: No

Second Language Requirement: Yes

**Career Opportunities:** SESE Earth and environmental studies graduates are prepared for positions in industry, consultancy, utilities, regulatory agencies, nonprofit organizations, governmental agencies and nongovernmental organizations. 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>

[seseinfo@asu.edu](mailto:seseinfo@asu.edu)

PSF 686

480/965-2213

## Economics, BS (LAECNBS)

**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 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** Students who have sought careers following their undergraduate education have been very successful in business, consulting or government. Our graduates have taken positions as corporate economists who collect data and make forecasts concerning the nature of the firm's business; as consultants who serve as advisers to both state and federal governments as well as private corporations and as 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 most recently, the Truman Award.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

### Contact Information:

Liberal Arts and Sciences, College of

Economics Program in CLAS

<http://wpcarey.asu.edu/ecn>

wpcareyecn@asu.edu

BAC 659

480/965-3531

## English (Creative Writing), BA (LAENGCBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of  
 Department of English  
<http://english.clas.asu.edu/>  
[englishadvising@asu.edu](mailto:englishadvising@asu.edu)  
 LL 542  
 480/965-3168

**English (Linguistics), BA (LAENGNBA)**

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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  
<http://english.clas.asu.edu/>  
 englishadvising@asu.edu  
 LL 542  
 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

## Family & Human Development, BS (LAFASBS)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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/>  
ssfd@asu.edu  
SS 144  
480/965-6978

## Film (Film & Media Studies), BA (LAFMSBA)

**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 nations 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 Katherine K. Herberger College of 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: No

Second Language Requirement: Yes

Minimum Math Requirement: 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, preparing students for a variety of career opportunities as leaders within 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 USC, UCLA, the University of Texas and Stanford. Others have selected career paths in the film, media and entertainment industries.

### Contact Information:

Liberal Arts and Sciences, College of  
<http://film.asu.edu/major>

filminfo@asu.edu

LL 641

480/965-6747

## French, BA (LAFREBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates have a variety of career opportunities in firms that deal with international trade, U.S. companies that have branches in France, airlines, and in education or government service. 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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL 440

480/965-6281

## Geography, BA (LAGCUBA)

**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 Latin America, Europe, Asia or Africa.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

**Geography, BS (LAGCUBS)**

**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 weather, water, landforms, plants, or in social science/environmental science dynamics involving human populations, economic patterns or transportation.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 119 - Finite Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

**Geography (Meteorology-Climatology), BS (LAGCUMBS)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 119 - Finite Mathematics

**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.
- The National Weather Service.
- U.S. Air Force (in either meteorology or pilot training).

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

**Geography (Urban Studies), BS (LAGCUUBS)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 119 - Finite Mathematics

**Career Opportunities:** Students successfully completing the program often find employment with city planning agencies, as well as government agencies at various levels, including county, state and federal levels. 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 transportation, economic development planning and housing issues.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

## German, BA (LAGERBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates have a variety of career opportunities in firms that deal with international trade, U.S. companies that have branches in Austria, Germany and Switzerland, with airlines, and in other fields. German is also useful in Eastern and Southeastern Europe. Some 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 & Cultures  
<http://silc.asu.edu/undergraduate/majors-minors-certs>  
[silcadvising@asu.edu](mailto:silcadvising@asu.edu)  
LL 440  
480/965-6281

## Global Health, BA (LASSHBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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 reports prepared by such organizations as the Pew Health Professional Consortium and the National Commission on Allied Health, experts conclude that the best health professionals have interdisciplinary perspectives, social and cultural acuity (such as in cross-cultural settings) and team-oriented skills. 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. Graduates interested in pursuing research or scientific careers continue to graduate school to seek a master's or doctorate degree in fields such as:

- Anthropology.
- Applied mathematics.
- Biology.
- Demography.
- Environmental studies.
- Evolutionary biology.
- Genetics.
- Geography.
- Infectious diseases.
- Public health.
- Sociology.
- Sustainability.

**Contact Information:**

Liberal Arts and Sciences, College of  
School of Human Evolution & Social Change  
[http://shesc.asu.edu/undergraduate\\_studies](http://shesc.asu.edu/undergraduate_studies)  
shesc.undergrad@asu.edu  
SHESC 233  
480/965-6215

**Global Studies, BA (LASGSBA)**

**Program Description:** The School of Government, Politics and Global Studies serves global, national and academic communities by spearheading new intellectual perspectives in which people strive to attain a higher quality of life. The school is transdisciplinary in strategy and transformational in purpose. Students pursuing the B.A. in global studies examine global issues from the perspective of an overarching theme of quality of life. Students organize their program of study by selecting a track. Students may choose a track in one of the following:

- Economic development.
- Environment.
- Global governance.
- Urban systems.
- Violence, conflict and human rights.

The program is organized around key current research and teaching themes. Global studies faculty as well as affiliated faculty from throughout the university offer courses.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: 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 Government, Politics and Global Studies

<http://globalstudies.clas.asu.edu/>  
globalstudies@asu.edu  
COOR 6705  
480/965-8563

## History, BA (LAHISBA)

**Program Description:** Students in the B.A. in history program study the growth and development of human society from all aspects - political, social, economic and cultural. Students are required to complete course work in one geographic emphasis. The department 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 B.A. program in history requires 30 credit hours in history course work, with 18 credit hours in history being upper division. Students are required to take 15 credit hours in related fields, 9 credit hours being upper division. Students are required to focus in one geographic concentration in history: United States, Europe, Asia, or Latin America and must take 15 credit hours of history in the same geographic concentration. Students in the U.S. and Europe concentrations must take 6 credit hours of history in areas outside both the U.S. and Europe. All concentrations are required to take one course from HST 302-307, HST 300 and HST 498. Students must complete all history and related fields course work with a grade of "C" (2.00) or better and must complete at least 12 hours at the Tempe campus.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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 preprofessional 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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:



Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of  
Historical, Philosophical & Religious Studies  
<http://shprs.clas.asu.edu/history>  
SHPRSadvising@asu.edu  
COOR 3309  
480/965-8364

**Integrated Studies, BA (LAISTBA)**

**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: No

Second Language Requirement: Yes

Minimum Math Requirement:

**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.

**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.

**Contact Information:**

Liberal Arts and Sciences, College of  
[http://clas.asu.edu/undergraduate\\_studies](http://clas.asu.edu/undergraduate_studies)  
CLASUndergrad@asu.edu  
FULTN 110  
480/965-6506

**Integrated Studies, BS (LAISTBS)**

**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: No

Second Language Requirement: No

**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.

**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.

**Contact Information:**

Liberal Arts and Sciences, College of  
[http://clas.asu.edu/undergraduate\\_studies](http://clas.asu.edu/undergraduate_studies)  
CLASUndergrad@asu.edu  
FULTN 110  
480/965-6506

### **International Letters & Cultures (Classics), BA (LASLCCBA)**

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: 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 law, business, or education.

**Contact Information:**

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

### **International Letters and Cultures, BA (LASLCBA)**

**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 of study 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: No

Second Language Requirement: Yes

Minimum Math Requirement: 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 proficiency in another language or languages, knowledge of other cultures, strong written and oral communication skills and 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>  
silcadvising@asu.edu  
LL 440  
480/965-6281

### Italian, BA (LAITABA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** There are numerous career opportunities for Italian graduates in art museums, firms that deal with international trade, including U.S. companies that have branches in Italy, airlines 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>  
silcadvising@asu.edu  
LL 440  
480/965-6281

### Justice Studies, BS (LAJUSBS)

**Program Description:** Justice and social inquiry is an innovative social science program that places social justice at the center of its 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:

1. Citizenship, migration and human rights.
2. Media, technology and culture.
3. Law, policy and social change.
4. Globalization, sustainability and economic justice.
5. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 law, non-governmental organizations, human welfare agencies and other public service organizations.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of

School of Social Transformation

<http://justice.clas.asu.edu>

[justiceinfo@asu.edu](mailto:justiceinfo@asu.edu)

WILSN 125

480/965-7682

### Mathematics, BA (LAMATBA)

**Program Description:** Mathematics is a crucial component in many disciplines such as physics, engineering applications, business and economics, and the life sciences and social sciences where the need for quantification in the analysis of phenomena is strong. 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (high-school or college teacher, university professor).
- Applied math (scientific computing).
- Business (actuary for bank or insurance company, operations research).
- Engineering, biotechnology, computer, government (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 (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/>

[math@asu.edu](mailto:math@asu.edu)

PSA 211

480/965-7195

### Mathematics, BS (LAMATBS)

**Program Description:** Mathematics is a crucial component in many disciplines such as physics, engineering applications, business, economics, and the life sciences and social sciences where the need for quantification in the analysis of phenomena is strong. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (high-school or college teacher, university professor).
- Applied math (scientific computing).
- Business (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://www.asu.edu/programs/concurrentdegrees/BAE\\_BS\\_Math.html](http://www.asu.edu/programs/concurrentdegrees/BAE_BS_Math.html).

**Contact Information:**

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

### **Mathematics (Statistics), BS (LAMATTBS)**

**Program Description:** Mathematics is a crucial component in many disciplines such as physics, engineering applications, business and economics, and in the life sciences and social sciences where the need for quantification in the analysis of phenomena is strong. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** Employment opportunities for math majors can be found in virtually all sectors of industry:

- Academia (high-school or college teacher, university professor).
- Applied math (scientific computing).
- Business (actuary for bank or insurance company, operations research).
- Engineering, biotechnology, computer, government (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, 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/>  
math@asu.edu

## Microbiology, BS (LAMICBS)

**Program Description:** 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 subdisciplines are included:

- Biodegradation.
- Food and pharmaceutical microbiology, including quality control.
- Immunology, which involves the study of immune defense mechanisms.
- Industrial microbiology and biotechnology.
- Medical and clinical microbiology, which concerns microbes that cause infectious diseases.
- Microbial fermentation, which involves growing microorganisms to make chemicals, antibiotics and other economically important products.
- Microbial genetics.
- Microbial physiology and biochemistry.
- Molecular biology.
- Mycology, which is the study of fungi.
- Recombinant DNA technology.
- Soil and aquatic microbiology.
- Virology.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 251 - Calculus for Life Sciences

**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/>  
[sols.advising@asu.edu](mailto:sols.advising@asu.edu)  
LSC 206  
480/727-6277

## Molecular Biosciences/Biotechnology, BS (LAMBBBS)

**Program Description:** 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.

Students then apply these principles in research settings to discover more about the causes of disease and how organisms develop and respond to environmental changes. Special emphasis is devoted to understanding how these

principles are applied by the biotechnology industry to improve the quality of life through the production of better and healthier foods with lower environmental impact and the treatment of illness and disease.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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 modern medical research and practice, plant research, pharmacology and gene discovery. 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/>

[sols@asu.edu](mailto:sols@asu.edu)

LSE 218

480/965-6899

### Philosophy, BA (LAPHIBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of

Historical, Philosophical & Religious Studies, Sch

<http://shprs.clas.asu.edu/philosophy>

[SHPRSadvising@asu.edu](mailto:SHPRSadvising@asu.edu)

COOR 3309

480/965-8364

## Physics, BA (LAPHYBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** Students graduating with a B.A. degree in physics may pursue such careers as health physicist, medical doctor (with additional pre-medical course work), lawyer, patent attorney, physical therapist, radiation physicist, research/lab assistant, science policy analyst, secondary science teacher or technology support analyst.

### Contact Information:

Liberal Arts and Sciences, College of  
Department of Physics  
<http://physics.asu.edu>  
[physics.info@asu.edu](mailto:physics.info@asu.edu)  
PSF 470  
480/965-3561

## Physics, BS (LAPHYBS)

**Program Description:** Physics is concerned with the nature, structure and interactions of matter and radiation. The Bachelor of Science 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: No

Second Language Requirement: No

Minimum Math Requirement: 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 physics, engineering, astronomy, medicine and other fields. The other half go directly into employment in areas such as engineering, materials science, education and business.

### Contact Information:

Liberal Arts and Sciences, College of  
Department of Physics  
<http://physics.asu.edu>  
[physics.info@asu.edu](mailto:physics.info@asu.edu)  
PSF 470  
480/965-3561

## Political Science, BA (LAPOSBA)

**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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics



**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 Federal Reserve, the Arizona governor's office, local and national newspapers, multinational corporations, state and local government and the judiciary.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

### Political Science, BS (LAPOSBS)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 Federal Reserve, the Arizona governor's office, local and national newspapers, multinational corporations, state and local government and the judiciary.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

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

## Psychology, BA (LAPGSBA)

**Program Description:** Psychologists study behavior, emotions and mental processes. Students in the B.A. program acquire knowledge and skills related to 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?

In addition, B.A. majors learn about statistics and research methods and use elective courses to develop skill sets in diverse settings, including the department's child development facilities.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 170 - Precalculus

**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 with 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 leading to many career opportunities. To practice psychology, advanced degrees are required in:

- Clinical.
- Developmental.
- Experimental.
- Cognitive systems.
- Behavior.
- Behavioral neuroscience.
- Social psychology.

This degree also leads to professional postgraduate programs in the fields of law and medicine.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

### Contact Information:

Liberal Arts and Sciences, College of

Department of Psychology

<http://psychology.clas.asu.edu/undergrad/advising>

[psych.advisor@asu.edu](mailto:psych.advisor@asu.edu)

PSY 255

480/965-7258

## Psychology, BS (LAPGSBS)

**Program Description:** Psychology is the study of behavior, emotions and the mental processes of individuals and groups, approached through a scientific methodology. The B.S in psychology is designed to prepare students to pursue graduate work in psychology and related fields. 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?

In addition, B.S. majors take advanced course work in statistics, and receive hands-on research experience by working with faculty members in the laboratory.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement:

**Career Opportunities:** This degree prepares students to pursue graduate degrees in psychology and cognate fields such as counseling, social work and family therapy. To practice psychology, advanced degrees are required in:

- Clinical.
- Developmental.
- Experimental.
- Cognitive systems.
- Behavior.
- Behavioral neuroscience.
- Social psychology.

Opportunities exist for professionals who complete advanced degrees in academic and clinical settings.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of

Department of Psychology

<http://psychology.clas.asu.edu/undergrad/advising>

[psych.advisor@asu.edu](mailto:psych.advisor@asu.edu)

PSY 255

480/965-7258

## Religious Studies, BA (LARELBA)

**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 Department of Religious Studies enjoys an excellent national reputation and 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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, law, journalism and social work.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Liberal Arts and Sciences, College of

Historical, Philosophical & Religious Studies, Sch

[http://shprs.clas.asu.edu/religious\\_studies](http://shprs.clas.asu.edu/religious_studies)

religious.studies@asu.edu

COOR 3312

480/965-7145

## Russian, BA (LARUSBA)

**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.
- Religion.
- Music and dance.

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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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, and 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>

[silcadvising@asu.edu](mailto:silcadvising@asu.edu)

LL 440

480/965-6281

## Sociology, BS (LASOCBS)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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/>  
ssfd@asu.edu  
SS 144  
480/965-6978

**Spanish, BA (LASPABA)**

**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: literature and culture or 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: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates may choose from several career options:

- College or university teaching and research in linguistics or literature through advanced degrees.
- Become certified to teach high school.
- 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>  
silcadvising@asu.edu  
LL 440  
480/965-6281

**Speech & Hearing Science, BS (LASHSBS)**

**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:

- Speech, language and hearing science.
- Anatomy and physiology of the hearing mechanism.
- The human communication system, including normal development of speech and language.

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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 - Precalculus

**Career Opportunities:** Employment opportunities for those with a B.S. may include positions as research assistants/associates in behavioral disciplines, management trainees or 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 from schools to hospitals and clinics.

**Contact Information:**

Liberal Arts and Sciences, College of  
Department of Speech and Hearing Science  
<http://shs.asu.edu/>  
[shsinfo@asu.edu](mailto:shsinfo@asu.edu)  
COOR 2215  
480/965-4520

**Transborder Chicana/o & Latina/o Studies (Media, Literature and Arts), BA (LATCLMBA)**

**Program Description:** The department enjoys great faculty strengths in this area. Its media focus includes cinematography, film production, video and electronic communication, performance art, cultural and literary studies and long-distance learning and development. This area will prepare students with critical, analytical and some technical skills, as well as the theoretical underpinnings of the use of media for human communication within the context of transnational and transborder processes.

Simultaneously, the literary and creative study of the major works and canons in Chicana/o, Latina/o, Mexican and Latin American corpora provide the academic templates for understanding the emotive and psychological basis of identity and cultural change of border and transnational populations. Literary and artistic works are templates of creativity from whence broader discussions of theory, history and multiple identities emerge ensconced within broad criticisms situated in transcultural settings.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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  
 Dept of Transborder Chicana/o & Latina/o Studies  
<http://transborder.clas.asu.edu>  
 tcls.info@asu.edu  
 COOR 6635  
 480/965-5091

**Transborder Chicana/o & Latina/o Studies (Transborder Community Development and Health), BA (LATCLTBA)**

**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 poverty, limited access to insurance, reliance on emergency measures and facilities and differential healthcare, as well as learn how to develop the appropriate mitigating applied programs. Other major orientations with an applied focus will include:

- Environmental home health.
- Vulnerable population's well being through the life cycle.
- Work and labor accidents.
- Ecological and environmental degradation.
- Epidemiological trends and issues of Mexican origin and Latina/o populations.

The department enjoys the presence of one medical anthropologist and we will in the very near future search for one more person in a medically-oriented social science or policy area. Deeply embedded within local and transborder communities, methodological instruction and skills will be especially stressed.

Majors are expected to fulfill the college's language requirement in Spanish. In addition, all majors must demonstrate proficiency in Spanish by passing an upper-division transborder Chicana/o and Latina/o course taught in Spanish.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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  
 Dept of Transborder Chicana/o & Latina/o Studies  
<http://transborder.clas.asu.edu>  
[tcls.info@asu.edu](mailto:tcls.info@asu.edu)  
 COOR 6635  
 480/965-5091

**Transborder Chicana/o & Latina/o Studies (US and Mexican Regional Immigration Policy & Economy), BA (LATCLUBA)**

**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:

1. The borderlands of the immediate U.S.-Mexico border region, where close to 12 million people live.
2. The entire country, with a total of 20.6 million people of Mexican origin, born in or migrated to the United States.

Our focus concerns 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 the present state of human migration, ecological conditions, economic policy towards trade, demographic transitions and the nexus of relations that are established across borders at local, regional and transborder levels.

We will focus primarily on the U.S.-Mexico region but transnational economics and political policies have, and will continue to, affect the manner in which Spanish-speaking Caribbean, and Central and South American regions respond. We will pay special attention to those policies concerning trade, agriculture, manufactured and assembled goods, and such major policies as NAFTA and CAFTA.

Majors are expected to fulfill the college's language requirement in Spanish. In addition, all majors must demonstrate proficiency in Spanish by passing an upper-division transborder Chicana/o and Latina/o studies course taught in Spanish.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**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  
 Dept of Transborder Chicana/o & Latina/o Studies  
<http://transborder.clas.asu.edu>  
[tcls.info@asu.edu](mailto:tcls.info@asu.edu)  
 COOR 6635  
 480/965-5091

**Urban Planning, BSP (ARPUPBSP)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: 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/>  
[geoplan@asu.edu](mailto:geoplan@asu.edu)  
 COOR 5673  
 480/965-7533

## Women & Gender Studies, BA (LAWSTBA)

**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. Through the study of history, culture, literature, politics, film, science and economics, students learn to challenge conventional wisdom about gender and learn new ways of viewing the world. Internship and leadership opportunities in business, government and nonprofit organizations, for example, allow students to pursue career goals.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The interdisciplinary women and gender studies program prepares students for many different career opportunities upon graduation. Graduates have created businesses, worked in nonprofit organizations and agencies serving women and girls, become lawyers and teachers and worked in policy and government. They have become consultants and counselors and secured careers in public relations. Our graduates are also well prepared for graduate and law school and have been admitted to prestigious programs.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

### Contact Information:

Liberal Arts and Sciences, College of

School of Social Transformation

<http://wgs.asu.edu>

[wgs.asutempe@asu.edu](mailto:wgs.asutempe@asu.edu)

WHALL 205

480/965-2358

## New College of Interdisciplinary Arts & Sciences

### American Studies, BA (ASAMSBA)

**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 systems, dealing with political, economic, religious and legal institutions.
- 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.
- 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies  
[http://newcollege.asu.edu/programs/amer\\_studies/](http://newcollege.asu.edu/programs/amer_studies/)  
harcs.dept@asu.edu  
FAB N201  
602/543-4444

### Applied Computing, BS (ASACOBS)

**Program Description:** The B.S. in applied computing within the New College of Interdisciplinary Arts and Sciences prepares students to collect and analyze data; allow for efficient, effective and ethical user interaction with computer systems; apply skills to lead the development of technology systems; engage in creative efforts; and 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, and networking and distributed processing.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** Students are prepared to integrate technology with human activities and to respond to global changes, solve problems and 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:**

New College of Interdisciplinary Arts & Sciences  
Division of Mathematical and Natural Sciences  
[http://newcollege.asu.edu/programs/app\\_comp/](http://newcollege.asu.edu/programs/app_comp/)  
MNS.Dept@asu.edu  
CLC C217  
602/543-6050

### Applied Mathematics, BS (ASMATBS)

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**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 (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:

- Operations research.
- Financial mathematics.
- Mathematical biology.
- Applied mathematical networks.
- General applied mathematics.

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Mathematical and Natural Sciences  
<http://newcollege.asu.edu/>  
MNS.Dept@asu.edu  
CLC C217  
602/543-6050

### Applied Science, BAS (ASBASBAS)

**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 degree 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 West campus 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

**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.

**Admission Requirements:** Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree. Not available for freshmen.

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies  
[http://newcollege.asu.edu/programs/app\\_science/](http://newcollege.asu.edu/programs/app_science/)  
harcs.dept@asu.edu  
FAB N201  
602/543-4444

## Communication, BA (ASCOMMBA)

**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 publics, between social institutions and their constituents and between members of different cultures. The B.S. prepares students to work in communication-rich environments such as training, human resources management and media relations. It also readies graduates to perform various forms of data analysis, communication assessment and technical reporting.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The program prepares students for advanced education; advancement toward careers in teaching, counseling, law and medicine; and various careers, including:

- Advertising.
- Customer relations.
- Fundraising.
- Health and human services.
- Human resources.
- International service.
- Lobbying.
- Mediation.
- Ministry.
- Public administration.
- Public advocacy.
- Public office.
- Public relations.
- Research.
- Speech writing.
- Training and development.

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Social and Behavioral Sciences  
[http://newcollege.asu.edu/programs/comm\\_studies/](http://newcollege.asu.edu/programs/comm_studies/)  
SBS.Dept@asu.edu

FAB S105  
602/543-6058

## Communication, BS (ASCOMMBS)

**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 publics, between social institutions and their constituents and between members of different cultures. The B.A. prepares students to work in communication environments such as training, human resources management and media relations.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Communication studies 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 studies graduates work in a variety of fields including:

- Customer service and customer relations.
- Education.
- Legal professions.
- Management.
- Media and public relations.
- Personnel.
- Sales and marketing.
- Training and development.

### Contact Information:

New College of Interdisciplinary Arts & Sciences  
Division of Social and Behavioral Science - W  
[http://newcollege.asu.edu/programs/comm\\_studies/](http://newcollege.asu.edu/programs/comm_studies/)  
SBS.Dept@asu.edu  
FAB S105  
602/543-6058

## English, BA (ASENGBA)

**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 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies

<http://newcollege.asu.edu/programs/english/>

harcs.dept@asu.edu

FAB N201

602/543-4444

### **Ethnicity, Race, First Nations Studies, BA (ASETHBA)**

**Program Description:** Ethnicity, race and 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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 program in ethnicity, race and first nation studies will be positioned to enter the workforce and function effectively and critically as informed citizens in a diverse and complex society.

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies

<http://newcollege.asu.edu/programs/erfns/>

harcs.dept@asu.edu

FAB N201

602/543-4444

### **History, BA (ASHISBA)**

**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. Students tailor the major to their personal and professional interests in consultation with a faculty advisor.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The history program 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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

New College of Interdisciplinary Arts & Sciences

Division of Humanities, Arts, and Cultural Studies

<http://newcollege.asu.edu/programs/history/>

[harcs.dept@asu.edu](mailto:harcs.dept@asu.edu)

FAB N290

602/543-4444

### **Integrative Studies, BA (ASIASBA)**

**Program Description:** The B.A. in integrative studies within the New College of Interdisciplinary Arts and Sciences prepares students for broad employment alternatives or for pursuing graduate studies. As a variation on 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 West campus 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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 post-baccalaureate 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:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies  
[http://newcollege.asu.edu/programs/integrative\\_studies/index.shtml](http://newcollege.asu.edu/programs/integrative_studies/index.shtml)  
harc.dept@asu.edu  
FAB N201  
602/543-4444

### **Interdisciplinary Arts & Performance, BA (ASIAPBA)**

**Program Description:** The B.A. in interdisciplinary arts and performance (IAP) is an interdisciplinary study of the arts and digital media with an emphasis on 20th and 21st century arts, performance, technology and practice. The program encourages practical application of theory and content area knowledge with the integration of skills and performance. IAP courses highlight creativity, innovation, integration and presentation.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies  
[http://newcollege.asu.edu/programs/interdisciplinary\\_arts\\_performance/index.shtml](http://newcollege.asu.edu/programs/interdisciplinary_arts_performance/index.shtml)  
harc.dept@asu.edu  
FAB N201  
602/543-4444

### **Life Sciences, BS (ASLSCBS)**

**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 among 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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, conservation officer).

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

New College of Interdisciplinary Arts & Sciences

Division of Mathematical and Natural Sciences

<http://newcollege.asu.edu/programs/lifesci/>

MNS.Dept@asu.edu

CLCC 217

602/543-6050

### Political Science, BA (ASPOLBA)

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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:**

New College of Interdisciplinary Arts & Sciences

Division of Social and Behavioral Sciences - W

<http://newcollege.asu.edu/programs/polisci/>

SBS.Dept@asu.edu

FAB S105

602/543-6058

### Political Science, BS (ASPOLBS)

**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, and 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. The B.S. requires six more credit hours (SBS 304 Social Statistics and a political science elective) than the B.A.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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:

New College of Interdisciplinary Arts & Sciences

Division of Social and Behavioral Sciences - W

<http://newcollege.asu.edu/programs/polisci/>

SBS.Dept@asu.edu

FAB S105

602/543-6058

### Psychology, BA (ASPGSBA)

**Program Description:** 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.

Students from western states who select this major at the West campus may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 119 - Finite Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Cochise College,  
Maricopa County Community College District

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Social and Behavioral Sciences - W  
<http://newcollege.asu.edu/programs/psychology/>  
SBS.Dept@asu.edu  
FAB S105  
602/543-6058

### **Psychology, BS (ASPGSBS)**

**Program Description:** 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.

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 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Cochise College,  
Maricopa County Community College District

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Social and Behavioral Sciences - W  
<http://newcollege.asu.edu/programs/psychology/>  
SBS.Dept@asu.edu  
FAB S105  
602/543-6058

**Religion & Applied Ethics Studies, BA (ASRELBA)**

**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 and 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates can anticipate opportunities in the following fields explored through their required internships:

- Business.
- Criminal justice.
- Education.
- Government.
- Human resources.
- Law enforcement.
- Law.
- Media.
- Medicine.
- Religious organizations.
- Social services.

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies  
[http://newcollege.asu.edu/programs/religious\\_studies/](http://newcollege.asu.edu/programs/religious_studies/)  
harcs.dept@asu.edu

FAB N201  
602/543-4444

### **Social & Behavioral Sciences (Behavioral Sciences), BA (ASSBSBBA)**

**Program Description:** The B.A. curriculum in social and behavioral sciences provides basic 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. Students choose either a social science or a behavioral science emphasis. All courses provide students with knowledge about the biological and/or social principles related to the behavior of individuals across multiple social contexts and institutions (family, community, society and culture).

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College 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:**

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

### **Social & Behavioral Sciences (Behavioral Sciences), BS (ASSBSBBS)**

**Program Description:** The social and behavioral sciences curriculum provides basic 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. Students choose either a social science or a behavioral science emphasis. All courses provide students with knowledge about the biological and/or social principles related to the behavior of individuals across multiple social contexts and institutions (family, community, society and culture).

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The interdisciplinary degree is an excellent means of creating a degree program that matches the individuals 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:**

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

**Social & Behavioral Sciences (Social Sciences), BA (ASSBSSBA)**

**Program Description:** The B.A. curriculum in social and behavioral sciences provides basic 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. Students choose either a social science or a behavioral science emphasis. All courses provide students with knowledge about the biological and/or social principles related to the behavior of individuals across multiple social contexts and institutions (family, community, society and culture).

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College 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:**

New College of Interdisciplinary Arts & Sciences  
Division of Social and Behavioral Sciences - W  
[http://newcollege.asu.edu/programs/sbs](http://newcollege.asu.edu/programs/sbs/)  
SBS.Dept@asu.edu  
FAB S105  
602/543-6058

**Social & Behavioral Sciences (Social Sciences), BS (ASSBSSBS)**

**Program Description:** The social and behavioral sciences curriculum provides basic 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. Students choose either a social science or a behavioral science emphasis. All courses provide students with knowledge about the biological and/or social principles related to the behavior of individuals across multiple social contexts and institutions (family, community, society and culture).

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The interdisciplinary degree is an excellent means of creating a degree program that matches the individuals 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:**

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

**Sociology, BA (ASSOCBA)**

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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:**

New College of Interdisciplinary Arts & Sciences  
Division of Social and Behavioral Sciences - W  
<http://newcollege.asu.edu/programs/sociology/>  
SBS.Dept@asu.edu  
FAB S105  
602/543-6058



## Sociology, BS (ASSOCBS)

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

### Contact Information:

New College of Interdisciplinary Arts & Sciences  
Division of Social and Behavioral Sciences - W  
<http://newcollege.asu.edu/programs/sociology/>  
SBS.Dept@asu.edu  
FAB S105  
602/543-6058

## Spanish, BA (ASSPABA)

**Program Description:** The B.A. in Spanish program within the New College of Interdisciplinary Arts and Sciences consists of three tracks: language, literature and cultures, integrated within the discipline and with other disciplines within the college. Classes are taught through an intensive language approach using the most recent electronic technologies.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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, the diplomatic corps, law enforcement agencies and 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 NAFTA agreement.

**Contact Information:**

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

### **Women's Studies, BS (ASWSTBS)**

**Program Description:** The B.S. 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. Consistent with the university's design imperatives of social embeddedness and use-inspired research, women's 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The women's 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.
- Healthcare services.
- Human resources development.
- Public and business administration.
- Social services.

**Contact Information:**

New College of Interdisciplinary Arts & Sciences  
Division of Humanities, Arts, and Cultural Studies  
[http://newcollege.asu.edu/programs/womens\\_studies/](http://newcollege.asu.edu/programs/womens_studies/)  
harcs.dept@asu.edu  
FAB N201  
602/543-4444

## Nursing & Health Innovation, College of

### Applied Science (Food Service Management), BAS (ECNTRBAS)

**Program Description:** The B.A.S. programs are 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: No

Second Language Requirement: No

**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.

**Admission Requirements:** Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree. Not available for freshmen.

**Contact Information:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu  
HSC 1386  
480/727-1728

### Applied Science (Health Sciences), BAS (NUHSCBAS)

**Program Description:** The B.A.S. programs are 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 AAS 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.

A request for additional tuition charges for upper division students in the College has been submitted and is under review. If approved, additional cost for upper division students will be effective beginning fall 2010.

Additional Program Fee: No

Second Language Requirement: No

**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 health/patient educator, elder services program coordinator, HMO/insurance company client coach, longterm care health/wellness coordinator, home health care coordinator, WIC/Community Nutrition Aide, school health and program specialist, and Healthy Start coordinator.

**Admission Requirements:** Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree. Not available for freshmen.

**Contact Information:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/>  
NEWHS@asu.edu

340 J Sutton Hall  
480/727-1728

### **Exercise & Wellness (Exercise & Wellness), BS (ECEXWBS)**

**Program Description:** The B.S. in exercise and wellness with a concentration in exercise and wellness provides students with the knowledge, skills and professional expertise to assist individuals across the life span in adopting physically active and healthy behaviors that lead to increased fitness, wellness and optimal health. Students are exposed to the latest research and practices designed to enhance physical activity and wellness, including both laboratory and field experiences. A distinctive aspect of the exercise and wellness concentration is an outstanding internship program that provides pre-professional experience in the fitness, wellness and health industry throughout the metropolitan Phoenix area.

Students offered admission into this degree program will pursue the degree at either the Polytechnic or Downtown Phoenix campus, based on the following criteria:

A. 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.

B. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Opportunities range broadly across many sectors of the fitness and wellness industries and health promotion professions. Potential career settings include work site (corporate) health promotion/fitness programs, clinical/medical rehabilitation programs, community agencies and programs and private health/fitness clubs and spas. The degree is also ideal preparation for advanced study in such health professions as cardiopulmonary rehabilitation and physical therapy, as well as graduate study in exercise and wellness.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

#### **Contact Information:**

Nursing & Health Innovation, College of

<http://nursingandhealth.asu.edu/programs/wellness/undergraduate/index.htm>

NEWHS@asu.edu

EAW 109

480/727-1945

### **Exercise & Wellness (Health Promotion), BS (ECEXWHBS)**

**Program Description:** The B.S. in exercise and wellness with a concentration in health promotion provides students with the knowledge, skills and professional expertise to assist individuals across their life span in adopting healthy lifestyles. Students are exposed to the latest research and practices designed to encourage behavioral changes that foster health and wellness. A distinctive aspect of the health promotion concentration is an outstanding internship program that provides pre-professional experience in the health, health promotion, health education and wellness professions throughout the metropolitan Phoenix area.

Students offered admission into this degree program will pursue the degree at either the Polytechnic or Downtown Phoenix campus, based on the following criteria:

A. 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.

B. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Career opportunities range broadly across many sectors of the wellness industry and health promotion professions. Possible career settings include work site (corporate) health promotion, clinical and medical health promotion and educational programs and community and governmental health agencies and programs. This degree also provides preparation for advanced study in fields such as public health or health promotion.

**Contact Information:**

Nursing & Health Innovation, College of

<http://nursingandhealth.asu.edu/programs/wellness/undergraduate/index.htm>

NEWHS@asu.edu

EAW 109

480/727-1945

### **Health Sciences (Health Policy), BS (NUHSCHPBS)**

**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.

A request for additional tuition charges for upper division students in the college has been submitted and is under review. If approved, additional cost for upper division students will be effective beginning fall 2010.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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 healthcare.

**Contact Information:**

Nursing & Health Innovation, College of

<http://nursingandhealth.asu.edu/programs/healthsciences>

NEWHS@asu.edu

SUTON 340

480/727-1728

## Health Sciences (Healthy Lifestyles Coaching), BS (NUHSCHLCBS)

**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.

A request for additional tuition charges for upper division students in the college has been submitted and is under review. If approved, additional cost for upper division students will be effective beginning fall 2010.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Career options include positions such as health/patient educator; elder service/congregate meal program coordinator; women, infants and children/community nutrition aide; school health and nutrition program specialist; and healthy start coordinator.

### Contact Information:

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/healthsciences>  
NEWHS@asu.edu  
SUTON 340  
480/727-1728

## Health Sciences (Pre-professional), BS (NUHSCPRES)

**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.

A request for additional tuition charges for upper division students in the college has been submitted and is under review. If approved, additional cost for upper division students will be effective beginning fall 2010.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** If not entering an advanced degree program in the medical field, employment opportunities include laboratory scientist, health officer, clinical research coordinator, and sales/marketing representative for pharmaceutical and/or medical device companies.

**Contact Information:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/healthsciences>  
NEWHS@asu.edu  
SUTON 340  
480/727-1728

**Kinesiology, BS (LAKINBS)**

**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 disciplinary knowledge of the aspects of human movement and physical activity, including:

- Anatomical.
- Biomechanical.
- Developmental.
- Physiological.
- Psychological.
- Sociological.

The department's graduate program is highly regarded nationally and internationally and have a strong interdisciplinary emphasis.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 – Precalculus

**Career Opportunities:** Kinesiology graduates have a wide range of career options in health and exercise performance. Some typical job paths include:

- Cardiac rehabilitation.
- Dentistry.
- Exercise equipment manufacturing.
- Medicine.
- Pharmaceutical sales.
- Pharmacy.
- Physical/occupational therapy.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer.

Maricopa County Community College District

**Contact Information:**

Nursing & Health Innovation, College of  
<http://kinesiology.clas.asu.edu/> TO CLAS NOT NURSING  
kinesundgrad@asu.edu

## Nursing, BSN (NUNURDBSN)

**Program Description:** Through a curriculum based upon evidence-based, critical thinking, sound knowledge and strong interpersonal communication skills, the B.S.N. program prepares students to provide the highest quality of health care. General education course work within the curriculum, including biology, social science and the humanities, provides a strong foundation for the nursing theory and clinical/experiential courses.

Please contact program office for additional information.

In addition to the traditional B.S.N. program, ASU also offers these program options:

- The R.N.-to-B.S.N. entry option offers registered nurses the opportunity to complete upper-division nursing program requirements leading to a B.S.N.. See <http://nursingandhealth.asu.edu/programs/nursing/undergraduate/rnbsn/admissions.htm>.
- The Arizona State University/Maricopa County Community College District Nursing Alliance Program is specifically designed for students in a Maricopa County Community College interested in the R.N.-B.S.N. track program. See <http://nursingandhealth.asu.edu/programs/nursing/undergraduate/rnbsn/admissions.htm>.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Admission Requirements:** Spring 2010

All applicants must meet (<http://students.asu.edu/undergraduate-admission>) university minimum admission requirements.

Effective Fall 2010

Applicants who already have or will have their registered nurse (RN) license must meet (<http://students.asu.edu/undergraduate-admission>) university minimum admission requirements.

Applicants who do not or will not have their RN license must meet the following admission criteria. Applicants who are admissible to ASU but do not meet these criteria will be admitted to Bachelor of Science in Health Sciences (Healthy Lifestyle Coaching) program in the College of Nursing and Health Innovation:

- 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.
- Freshman 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 2.75.

**Contact Information:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/>  
[nursing@asu.edu](mailto:nursing@asu.edu)  
602/496-0852

## Nutrition (Dietetics), BS (ECNTRDBS)

**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:

A. 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.

B. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
[nutrition@asu.edu](mailto:nutrition@asu.edu)  
HSC 1386  
480/727-1728

**Nutrition (Food & Nutrition Management), BS (ECNTRMBS)**

**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:

A. 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.

B. 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: No

Second Language Requirement: No

Minimum Math Requirement: 010725 Flow Mdlng Validatn

**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:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu  
HSC 1386  
480/727-1728

**Nutrition (Human Nutrition), BS (ECNTRHBS)**

**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 healthcare 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:

A. 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.

B. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** The nutrition field provides employment opportunities in healthcare, 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:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu

HSC 1386  
480/727-1728

### **Nutrition (Nutrition Communication), BS (ECNTRCBS)**

**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:

A. 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.

B. 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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:**

Nursing & Health Innovation, College of  
<http://nursingandhealth.asu.edu/programs/nutrition>  
nutrition@asu.edu  
HSC 1386  
480/727-1728

## **Public Programs, College of**

### **Criminal Justice & Criminology, BS (PPCRIMJBS)**

**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 crime and criminal justice. The focus is on the policies and practices of criminal justice system components, 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 and West campuses.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 witness advocate agencies.

Graduates may also pursue advanced degrees in law, criminology and criminal justice and other social science disciplines.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Cochise College,  
Maricopa County Community College District

**Contact Information:**

Public Programs, College of  
School of Criminology and Criminal Justice  
<http://ccj.asu.edu/>  
[sccj@asu.edu](mailto:sccj@asu.edu)  
UCENT 600  
602/496-2369

### **Nonprofit Leadership & Management, BS (PPNLMBS)**

**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. Having completed the undergraduate program, a student may also earn national certification from American Humanics, Inc., which will prepare him or her to lead and strengthen nonprofit organizations. For more information, access the school's Web site.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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, March of Dimes, The Humane Society of the United States, National Urban League, United Way and primarily 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, healthcare and others. Typical positions include roles as program directors, development directors, field executives, volunteer coordinators and similar positions from a variety of agencies and organizations.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Public Programs, College of  
School of Community Resources and Development  
<http://scrd.asu.edu>  
[scrd@asu.edu](mailto:scrd@asu.edu)  
UCENT 550  
602/496-0550

## **Parks & Recreation Management, BS (PPPRMBS)**

**Program Description:** The B.S. in parks and recreation provides an interdisciplinary education in the management of parks, protected areas and community-based recreation services. The parks and recreation fields emerged from the youth development, 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 combines classroom instruction with field experiences and covers parks and recreation policy, programming, planning, management, communication, inclusive services and history. 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:

1. Community recreation services.
2. Natural resource recreation.
3. 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 Web site for details.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 youth agencies, city park and recreation departments, county and state park agencies, tour operations, sport venues, special event management, hospitals and federal natural resource agencies. In such settings, graduates design, develop and manage services that address the recreational needs of a particular clientele.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Public Programs, College of  
School of Community Resources and Development  
<http://scrd.asu.edu>  
[scrd@asu.edu](mailto:scrd@asu.edu)  
UCENT 550  
602/496-0550

## **Parks & Recreation Management (Therapeutic Recreation), BS (PPPRMTRBS)**

**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. Students who choose this concentration are truly committed to improving people's lives and contributing to their communities.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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/>  
scrd@asu.edu  
UCENT 550  
602/496-0550

## **Public Service & Public Policy, BS (PPPAFBS)**

**Program Description:** The Bachelor of Science in public service and public policy prepares students for work in the public and nonprofit sectors through comprehensive coverage of topics in public policy and public administration. Students will become familiar with the challenges of management and leading a public organization and the process of policy development. The program enables students to examine the public sector through multiple lenses and address the challenges it faces in a practical way. It prepares students for professional careers in public service and offers preparation for students who wish to pursue graduate degrees in public administration, public policy, law or other public service and policy-oriented areas.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** The program is primarily focused on individuals working or interested in working in the public sector. The skills and knowledge students acquire allow them to successfully function in many other types of organizations; however, the primary focus is on public organizations. 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:**

College of Public Programs

School of Public Affairs  
<http://spa.asu.edu/new/explore.htm>  
DPC - UCENT 400  
602/496-0450

## Social Work, BSW (PPSWUSWU)

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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

### Contact Information:

Public Programs, College of  
School of Social Work

<http://ssw.asu.edu/portal/>  
social\_work@asu.edu  
UCENT 800  
602/496-0800

### **Tourism Development & Management, BS (PPTDMBS)**

**Program Description:** Through the B.S. in tourism development and management program, 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 of Phoenix.

Through the required internship component of the program, students gain practical experiences leading to professional positions in various travel, tourism and related fields. Exposure to the businesses of heritage tourism, nature-based tourism, resort management and meeting and convention planning prepare students for successful careers in the travel and tourism industry. Having completed the B.S. in tourism development and management, a student may also complete a certificate in convention sales and meeting planning.

In addition, students may also choose to complete a study abroad program.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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 the air transportation sector, sports tourism, resorts and hotels, meetings and conventions, state and national parks, business and corporate travel and the gaming and casino sectors.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

#### **Contact Information:**

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

### **Urban & Metropolitan Studies, BA (PPURBBA)**

**Program Description:** The B.A. program in urban and metropolitan studies offers students the opportunity to explore a wide range of issues that influence the quality of urban life. The Phoenix metropolitan region is one of the nation's fastest growing urban centers and it's projected that the area will continue this trajectory of rapid growth. Located in the heart of downtown Phoenix, the urban and metropolitan studies program provides an ideal setting for training future leaders to effectively address the challenges of rapid growth along with other contemporary urban issues. Students examine and engage these issues through multiple lenses – historic, social, cultural, economic and political.

Through course work and hands-on internships, students engage in scholarship, practice and stewardship. As scholars, they contribute and expand our body of knowledge at the highest level. And as stewards, they contribute to enhance the health and well being of our places, institutions and communities.



Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: 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 and 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 urban planning, public policy, public administration, law, business, real estate development, arts administration, historic preservation, journalism, education and other fields.

**Contact Information:**

Public Programs, College of  
School of Public Affairs

<http://spa.asu.edu/new/urban/default.htm>

spa@asu.edu

UCENT 400

602/496-0450

### **Urban & Metropolitan Studies, BS (PPURBBS)**

**Program Description:** The B.S. program in urban and metropolitan studies offers students the opportunity to explore a wide range of issues that influence the quality of urban life. The Phoenix metropolitan region is one of the nation's fastest growing urban centers and it's projected that the area will continue this trajectory of rapid growth. Located in the heart of downtown Phoenix, the urban and metropolitan studies program provides an ideal setting for training future leaders to effectively address the challenges of rapid growth along with other contemporary urban issues.

Students examine and engage these issues through multiple lenses – historic, social, cultural, economic and political. Applying quantitative as well as qualitative research methods, students develop and implement innovative means for enhancing quality of place and quality of life in the contemporary metropolis. Students in the B.S. program are required to complete an upper-division course in statistics.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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 and 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 urban planning, public policy, public administration, law, business, real estate development, arts administration, historic preservation, journalism, education and other fields.

**Contact Information:**

Public Programs, College of  
School of Public Affairs

<http://spa.asu.edu/new/urban/default.htm>

spa@asu.edu

## Sustainability, School of Sustainability, BA (SUSUSTBA)

**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:

- Society and sustainability.
- Policy and governance in sustainable systems.
- International development 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.

Additional Program Fee: No

Second Language Requirement: Yes

Minimum Math Requirement: MAT 170 - Precalculus

**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.

**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:

1. 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.
2. 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).

### Contact Information:

Sustainability, School of  
<http://schoolofsustainability.asu.edu>  
[schoolofsustainability@asu.edu](mailto:schoolofsustainability@asu.edu)

## Sustainability, BS (SUSUSTBS)

**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:

- Sustainable energy, materials and technology.
- Economics of sustainability.
- Sustainable ecosystems.

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: No

Second Language Requirement: Yes

**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.

**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:

3. 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.
4. 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).

### Contact Information:

Sustainability, School of  
<http://schoolofsustainability.asu.edu>  
[schoolofsustainability@asu.edu](mailto:schoolofsustainability@asu.edu)  
GIOS 108  
480/727-6963

## Teachers College, Mary Lou Fulton

### Early Childhood Education, BAE (EDECDBAE)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

#### Contact Information:

Teachers College, Mary Lou Fulton

Teacher Preparation, Division W

<http://teach.asu.edu/programs/undergraduate>

[educationadvising@asu.edu](mailto:educationadvising@asu.edu)

FAB S210-1

602/543-6358

### Elementary Education, BAE (TEEDBAE)

**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 first-generation 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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**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.

**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

**Contact Information:**

Teachers College, Mary Lou Fulton  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
FAB S210-1  
602/543-6358

### **Elementary Education (Diversity in Language and Learning), BAE (TEDLLBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: 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  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
FAB S210-1  
602/543-6358

### **Secondary Education (Biological Sciences), BAE (TEBIOBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 - Precalculus

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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

Teacher Preparation, Division W

<http://teach.asu.edu/programs/undergraduate>

[educationadvising@asu.edu](mailto:educationadvising@asu.edu)

FAB S210-1

602/543-6358

### **Secondary Education (Business), BAE (EDBUSBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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

Teacher Preparation, Division W

<http://teach.asu.edu/programs/undergraduate>

educationadvising@asu.edu

FAB S210-1

602/543-6358

### **Secondary Education (Chemistry), BAE (TECHMBAE)**

**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: No

Second Language Requirement: No

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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

Teacher Preparation, Division W

<http://teach.asu.edu/programs/undergraduate>

[educationadvising@asu.edu](mailto:educationadvising@asu.edu)

FAB S210-1

602/543-6358

**Secondary Education (Earth & Space Sciences), BAE (EDESSBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: 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:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
FAB S210-1  
602/543-6358

**Secondary Education (Economics), BAE (EDECNBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
 Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
 FAB S210-1  
 602/543-6358

**Secondary Education (English), BAE (TEENGBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.

3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
 Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
 FAB S210-1  
 602/543-6358

**Secondary Education (French), BAE (EDFREBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.

5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
 Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
 FAB S210-1  
 602/543-6358

**Secondary Education (Geography), BAE (EDGCUBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.

10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
 Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
 FAB S210-1  
 602/543-6358

**Secondary Education (German), BAE (EDGERBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.

12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
 Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
 FAB S210-1  
 602/543-6358

**Secondary Education (History), BAE (TEHISBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.

14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
FAB S210-1  
602/543-6358

**Secondary Education (Japanese), BAE (EDJPNBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.

17. Physical education.
18. Physics.
19. Political Science.
20. 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  
 Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
 FAB S210-1  
 602/543-6358

**Secondary Education (Mathematics), BAE (TEMATBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.



## 20. 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  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
FAB S210-1  
602/543-6358

### **Secondary Education (Physical Education), BAE (ECPPEBAE)**

**Program Description:** The physical education concentration under the B.A.E. in secondary education prepares future teachers to delivery quality 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: No

Second Language Requirement: No

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. Spanish.

Graduates specializing in art, dance, music and physical education receive a secondary teaching certificate with a K-12 endorsement.

**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.

**Contact Information:**

Teachers College, Mary Lou Fulton  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
SANCA 331  
480/727-1103

**Secondary Education (Physics), BAE (EDPHYBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 270 - Calculus w/Analytic Geometry I

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>  
[educationadvising@asu.edu](mailto:educationadvising@asu.edu)  
FAB S210-1  
602/543-6358

**Secondary Education (Political Science), BAE (TEPOLBAE)**

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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  
Teacher Preparation, Division W  
<http://teach.asu.edu/programs/undergraduate>

educationadvising@asu.edu

FAB S210-1

602/543-6358

## Secondary Education (Spanish), BAE (TESPABAE)

**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:

1. Biological sciences.
2. English.
3. History.
4. Mathematics.
5. Natural sciences.
6. Social studies.
7. 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: No

Second Language Requirement: No

**Career Opportunities:** Graduates are recommended for secondary teacher certification in grades seven to 12 in an area of academic specialization:

1. Art.
2. Biological sciences.
3. Business.
4. Chemistry.
5. Dance.
6. Earth and space science.
7. Economics.
8. English.
9. French.
10. Geography.
11. German.
12. History.
13. Japanese.
14. Mathematics.
15. Music-choral.
16. Music-instrumental.
17. Physical education.
18. Physics.
19. Political Science.
20. 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

Teacher Preparation, Division W

<http://teach.asu.edu/programs/undergraduate>

educationadvising@asu.edu

FAB S210-1

602/543-6358

## Special Education, BAE (TESPEBAE)

**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: No

Second Language Requirement: No

Minimum Math Requirement: MAT 142 - College Mathematics

**Career Opportunities:** National and state studies report the current and projected need over 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 cross-categorical 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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

### Contact Information:

Teachers College, Mary Lou Fulton

Teacher Preparation, Division W

<http://teach.asu.edu/programs/undergraduate>

educationadvising@asu.edu

FAB S210-1

602/543-6358

## Technology and Innovation, College of

### Aeronautical Management Technology (Air Transportation Management), BS (TSAMTMS)

**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. The Aviation Accreditation Board International accredits this program.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** A degree in air transportation management prepares graduates for careers as air traffic control specialist, air carrier manager, airport manager and 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>  
aerotech@asu.edu  
SIM BLDG  
480/727-1021

### **Aeronautical Management Technology (Professional Flight), BS (TSAMTFBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** The professional flight concentration offers students private pilot, commercial pilot and flight instructor certificates, and 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.

**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://eastair.poly.asu.edu> for more information.

**Contact Information:**

Technology and Innovation, College of  
Dept of Tech Entrepreneurship and Innovation Mgmt  
<http://technology.asu.edu/aviation>  
aerotech@asu.edu  
SIM BLDG  
480/727-1021

### **Air Traffic Management, BS (TSATMBS)**

**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: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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.

**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](http://www.poly.asu.edu/aviation) for more information.

**Contact Information:**

Technology and Innovation, College of  
Dept of Tech Entrepreneurship and Innovation Mgmt  
<http://technology.asu.edu/aviation>  
aerotech@asu.edu  
SIM BLDG  
480/727-1021

### **Applied Biological Sciences (Applied Biological Sciences), BS (TSABSABS)**

**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 and in the living laboratories of the Sonoran desert, the surrounding ecosystems and the landscape of the greater Phoenix area.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 210 - Brief Calculus

**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, environmental biotechnology, medicine, dentistry, physical therapy, ecology, horticulture, veterinary medicine and wildlife biology.

**Contact Information:**

Technology and Innovation, College of  
Department of Applied Biological Sciences  
<http://technology.asu.edu/dasm>  
appliedbiologicalsciences@asu.edu  
WANER 340  
480/727-1444

## Applied Biological Sciences (Secondary Education in Biology), BS (TSABSSBS)

**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 Department of Applied Biological Sciences and the Mary Lou Fulton Teachers College.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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, environmental biotechnology, medicine, dentistry, physical therapy, ecology, horticulture and wildlife biology.

### Contact Information:

Technology and Innovation, College of  
Department of Applied Biological Sciences  
<http://technology.asu.edu/dasm>  
[appliedbiologicalsciences@asu.edu](mailto:appliedbiologicalsciences@asu.edu)  
WANER 340  
480/727-1444

## Applied Biological Sciences (Urban Horticulture), BS (TSABSUBS)

**Program Description:** The urban horticulture concentration, under the B.S. in applied biological sciences degree, emphasizes the relationship of plants and people in city 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: No

Second Language Requirement: No

Minimum Math Requirement: 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, environmental biotechnology, medicine, dentistry, physical therapy, ecology, horticulture and wildlife biology.

### Contact Information:

Technology and Innovation, College of  
Department of Applied Biological Sciences  
<http://technology.asu.edu/dasm>  
[appliedbiologicalsciences@asu.edu](mailto:appliedbiologicalsciences@asu.edu)  
WANER 340  
480/727-1444

## Applied Biological Sciences (Wildlife & Restoration Ecology), BS (TSABSRBS)

**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: No



Second Language Requirement: No

Minimum Math Requirement: 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, environmental biotechnology, medicine, dentistry, physical therapy, ecology, horticulture and wildlife biology.

**Contact Information:**

Technology and Innovation, College of  
Department of Applied Biological Sciences  
<http://technology.asu.edu/dasm>  
[appliedbiologicalsciences@asu.edu](mailto:appliedbiologicalsciences@asu.edu)  
WANER 340  
480/727-1444

### Applied Computer Science, BS (TSAC SBS)

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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) or 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/>  
[egr@asu.edu](mailto:egr@asu.edu)  
SANTN 230  
480/727-2727

### Applied Psychology, BS (ECP SYBS)

**Program Description:** 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. Have you ever had difficulty using a website? These sites can be improved by considering the way people think. The applied psychology program provides the background and skills necessary to assist in such work. The program also serves students in other College of Technology and Innovation programs, such as manufacturing engineering technology and aviation management technology.

Students from western states who select this major at the Polytechnic campus may be eligible for a reduced nonresident tuition rate at a tuition rate of 150 percent of Arizona resident tuition plus all applicable fees. Pursuing this degree

online is not WUE-eligible. See more information and eligibility requirements on the Western Undergraduate Exchange (WUE) program (<http://students.asu.edu/admission/wue>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 119 - Finite Mathematics

**Career Opportunities:** Most careers in psychology require a master's or a doctoral degree, but some opportunities exist for employment in applied areas with good training at the undergraduate level. Such positions may involve working as a research assistant or working in some aspect of human factors. For example, there is a pressing need for people who can help evaluate and improve the usability of products and software. Have you ever had difficulty using a Web site? These sites can be improved by considering the way people think. The applied psychology program aims to provide the background and skills necessary to assist in such work.

**Contact Information:**

Technology and Innovation, College of  
Faculty of Applied Psychology  
<http://technology.asu.edu/appliedpsych>  
technology@asu.edu  
SANCA 150  
480/727-1177

### Applied Science, BAS (TSAPSBAS)

**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.
- Software and computing systems.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

**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.

**Admission Requirements:** Students applying to this program must have completed an Associate of Applied Science (AAS) degree. This program is not available for freshmen.

**Contact Information:**

Technology and Innovation, College of  
College of Technology & Applied Sciences  
<http://technology.asu.edu>

technology@asu.edu

SANTN 330

480/727-1089

### **Applied Science (Aviation Management Technology), BAS (TSAMTABAS)**

**Program Description:** The B.A.S. programs are 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement:

**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.

**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.

#### **Contact Information:**

Technology and Innovation, College of

Dept of Tech Entrepreneurship and Innovation Mgmt

<http://technology.asu.edu/aviation>

aerotech@asu.edu

SIM BLDG

480/727-1021

### **Applied Science (Electronic & Energy Systems), BAS (TSEESBAS)**

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

**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.

**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.

**Contact Information:**

Technology and Innovation, College of  
Department of Engineering Technology  
<http://technology.asu.edu/>  
engrtech@asu.edu  
TECH 101  
480/727-1584

### **Applied Science (Emergency Management), BAS (TSIMCEBAS)**

**Program Description:** The B.A.S. programs are a flexible, 60-credit-hour degree designed specifically for students who have earned an A.A.S. from a regionally accredited institution.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

**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.

**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.

**Contact Information:**

Technology and Innovation, College of  
Dept of Tech Entrepreneurship and Innovation Mgmt  
<http://etmonline.asu.edu/>  
danny.peterson@asu.edu  
TECH 102  
480/727-1100

### **Applied Science (Graphic Information Technology), BAS (TSGITBAS)**

**Program Description:** The B.A.S. programs are 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 graphic information technology prepares graduates in the cross-media graphic industry that includes traditional printing and publishing, variable data printing, Internet and web development, commercial digital photography, engineering graphics, 3D modeling, multimedia and animation.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** Graduates of the program which combines technical course work with management content are prepared to assume supervisory positions in industry such as production manager, designer, Web developer, commercial photographer, animation specialist, quality assurance manager, customer service representative and plant manager.

**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.

**Contact Information:**

Technology and Innovation, College of  
Dept of Tech Entrepreneurship and Innovation Mgmt  
<http://technology.asu.edu/git>  
DTM@asu.edu  
Technology Center 102  
480/727-1781

### **Applied Science (Internet & Web Development), BAS (TSIWDBAS)**

**Program Description:** The B.A.S. programs are 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 internet and Web development focuses on the development of internet sites, including security, usability, e-commerce, server and client side issues and cross-media graphic applications. The degree can be taken entirely through distance learning, however students must work with an advisor to schedule classes. Appropriate A.A.S degrees for this B.A.S. are graphic design, graphic arts, fine arts, computer science or a technical discipline with related work experience.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** 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, integrated media, and multimedia for design, training and marketing.

**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.

**Contact Information:**

Technology and Innovation, College of  
Dept of Tech Entrepreneurship and Innovation Mgmt  
<http://technology.asu.edu/git>  
ask.git@asu.edu

TECH 102  
480/727-1781

### **Applied Science (Manufacturing Technology & Management), BAS (TSMETFBAS)**

**Program Description:** The B.A.S. programs are 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement:

**Career Opportunities:** Typically, students who graduate with this B.A.S. concentration work in manufacturing, production or operations.

**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.

**Contact Information:**

Technology and Innovation, College of  
Department of Engineering Technology  
<http://technology.asu.edu/engrtech>  
engrtech@asu.edu  
SIM 295  
480/727-1584

### **Applied Science (Operations Management Technology), BAS (TSIMCOBAS)**

**Program Description:** The B.A.S. programs are 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 organizes work, understands the work environment and creates a safe and healthful work environment, hires qualified workers that can do the job or can be trained/educated to perform the job, motivates and develops the workforce, effectively utilizes the resources available to create quality products and/or services and accomplishes unit goals.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

**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.

**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.

**Contact Information:**

Technology and Innovation, College of  
Dept of Tech Entrepreneurship and Innovation Mgmt  
<http://technology.asu.edu/omt>

ts@asu.edu  
TECH 102  
480/727-1781

### **Applied Science (Software & Computing Systems), BAS (TSCSTBAS)**

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement:

**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.

**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.

#### **Contact Information:**

Technology and Innovation, College of  
Department of Engineering  
<http://technology.asu.edu/engineering>  
SANTAN 230  
480/727-2727

### **Computer Systems (Computer Hardware Technology), BS (TSCSTHBS)**

**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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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/>  
egr@asu.edu  
SANTN 230  
480/727-2727

### **Computer Systems (Embedded Systems Technology), BS (TSCSTMBS)**

**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. Computer systems 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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  
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### **Electronics Engineering Technology (Alternative Energy Technologies), BS (TSEETABS)**

**Program Description:** 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.



Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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 system design, process control, application interface, technology analysis, policy analysis, environmental and reliability analysis.

**Contact Information:**

Technology and Innovation, College of  
Department of Engineering Technology  
<http://technology.asu.edu/engrtech>  
engrtech@asu.edu  
TECH 101  
480/727-1584

### **Electronics Engineering Technology (Electronic Systems), BS (TSEETEBS)**

**Program Description:** 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. The Technology Accreditation Commission of ABET accredits this program.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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:**

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Department of Engineering Technology  
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engrtech@asu.edu  
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480/727-1584

### **Electronics Engineering Technology (Integrated Systems), BS (TSEETINBS)**

**Program Description:** 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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>  
engrtech@asu.edu  
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480/727-1584

### Engineering, BSE (TSEGRBSE)

**Program Description:** The emerging problems that engineers must solve require a broad set of interdisciplinary skills. Engineers are challenged with improving the quality of life for humankind, designing innovative products, preparing for potential catastrophes, and 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 concentrations, 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**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.

**Transfer Agreements:** ASU has partnered with the following institutions to enable you to do a seamless transfer:

Maricopa County Community College District

**Contact Information:**

Technology and Innovation, College of  
Department of Engineering  
<http://technology.asu.edu/engineering/>  
egr@asu.edu  
Santan 230  
480/727-2727

## Environmental Technology Management, BS (TSETMBS)

**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 management courses such as technical communications, project management and management dynamics.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: 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 and Entrepreneurship and Innovation Mgmt  
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ts@asu.edu  
TECH 102  
480/727-1781

## Graphic Information Technology, BS (TSGITBS)

**Program Description:** The cross-media nature of the graphic information industry requires tomorrow's graduates to understand the full spectrum of graphic imaging and reproduction processes and current business practices. The B.S. in graphic information technology degree program prepares graduates for a seamless career in the graphics industry from traditional printing and publishing to the Internet and multimedia. This is an intensive program of study emphasizing theory and hands-on laboratory practice. Students develop skills to plan and execute graphic solutions using visualization and prepress, engineering graphic standards, technical document design, higher-level graphic programming languages, computer drawing and illustration, commercial digital photography, multimedia and 3-D modeling, project management, quality assurance and e-commerce practices. The National Association of Industrial Technology professionally accredits the graphic information technology program.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 - Precalculus

**Career Opportunities:** The graphic information technology concentration prepares graduates for technical and management positions in the diverse graphic communication and information technology industries, such as:

- Digital printing and publishing.
- Management of graphic information assets.
- Planning and evaluation of print, Internet, multimedia and computer-based communications.
- 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/dtm>  
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TECH 102  
480/727-1781

### **Manufacturing Engineering Technology (Manufacturing Engineering Technology), BS (TSMETBS)**

**Program Description:** The manufacturing engineering technology program emphasizes applied engineering practice through a B.S. program. In the program, engineering, math and science principles are applied to the solution of technical problems in a lecture/laboratory environment. 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. The program's educational approach focuses on producing an industry-ready graduate by incorporating knowledge that practicing manufacturing engineers use. Students "learning by doing" via the use of equipment typical of that found in industry. The program's manufacturing laboratories are among the best in the nation. Industrial-strength manufacturing equipment, including computer numerical control machining centers, welding, casting and forming, automation and material testing facilities support the curriculum. Laboratory sections are restricted to 15 or fewer students when possible. All faculty in the program have industry experience in addition to doctoral degrees.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** The B.S. in manufacturing engineering technology and its specialty concentration offer great flexibility in both type of work and location. Career employment opportunities include design and development, direct manufacturing support, quality control and assurance, sales and management. 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 startup 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>  
engrtech@asu.edu  
SIM 295  
480/727-1584

## **Manufacturing Engineering Technology (Mechanical Engineering Technology), BS (TSMETMBS)**

**Program Description:** The manufacturing engineering technology program emphasizes applied engineering practice through a B.S. program. In the program, engineering, math and science principles are applied to the solution of technical problems in a lecture/laboratory environment. 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. The program's educational approach focuses on producing an industry-ready graduate by incorporating knowledge that practicing manufacturing engineers use. Students "learning by doing" via the use of equipment typical of that found in industry. The program's manufacturing laboratories are among the best in the nation.

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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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.

### **Contact Information:**

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Department of Engineering Technology  
<http://technology.asu.edu/engrtech>  
[engrtech@asu.edu](mailto:engrtech@asu.edu)  
SIM 295  
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## **Mechanical Engineering Technology (Aeronautical Engineering Technology), BS (TSMECEBS)**

**Program Description:** The mechanical engineering technology program emphasizes applied engineering practice through a B.S. program. Students can customize their degree with a specialized concentration in aeronautical engineering technology, which provides specialized content area in aircraft airframe, propulsion and aircraft production and operations. It prepares students for employment in areas such as aircraft design and manufacturing, aerodynamics, propulsion and wind tunnel testing. Aeronautical concentration graduates have a good general background in mechanical engineering technology and are not limited to employment opportunities in just the aviation industry. 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

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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, research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates. The aeronautical concentration prepares students for employment in areas such as aircraft design and manufacturing, aerodynamics, propulsion and wind tunnel testing.

**Contact Information:**

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Department of Engineering Technology  
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SIM 295  
480/727-1584

**Mechanical Engineering Technology (Automation Engineering Technology), BS (TSMECUBS)**

**Program Description:** The mechanical engineering technology program emphasizes applied engineering practice through a B.S. program. Students can customize their degree with a specialized concentration in automation engineering technology, which provides specialty content in mechanical automation. Automated assembly and testing are major components of most modern, high-volume mechanical systems and manufacturing operations. As a specialty area, this concentration provides students with an opportunity to develop knowledge and skill in the broad area of automation. It also dovetails well with the semiconductor industry where most process tools are highly automated. 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.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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, research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates. Automation concentration graduates have special knowledge focused on designing and implementing automated manufacturing and assembly equipment, including industrial robots. Graduates can work in the wide variety of companies that design, build or utilize high speed automated machinery, including the semiconductor, automotive or electronics industries.

**Contact Information:**

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Department of Engineering Technology  
<http://technology.asu.edu/engrtech>  
[engrtech@asu.edu](mailto:engrtech@asu.edu)  
SIM 295  
480/727-1584

**Mechanical Engineering Technology (Automotive Engineering Technology), BS (TSMECTBS)**

**Program Description:** The mechanical engineering technology program emphasizes applied engineering practice through a B.S. program. Students can customize their degree a specialized concentration in automotive engineering technology, which provides comprehensive exposure to modern automobiles. The course configuration is based on the functional structure of an automotive company and emphasizes system integration. Courses include an introduction to automotive engineering including interior and exterior body design, powertrains, chassis design, electrical and control systems, thermal design and system integration and testing.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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, research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates. The automotive concentration provides students the additional option of being prepared to work for automotive companies, small or large, or their suppliers. Students have a broad background in vehicle engineering and can quickly contribute in a variety of positions within a company.

**Contact Information:**

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Department of Engineering Technology  
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**Mechanical Engineering Technology (Mechanical Engineering Technology), BS (TSMECBS)**

**Program Description:** The mechanical engineering technology program emphasizes applied engineering practice through a B.S. program. Students in this program are people who enjoy the practice of engineering. So, mechanical engineering technology students are builders; they make complex industrial processes and systems work. Engineering technology students make new technology work and keep it working. As graduates, they often work as members of design and development teams, cooperating with others both in and outside of their company. The program emphasizes how engineering principles are applied in practice. 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. Graduates have an understanding of:

- Energy and power technology including alternative energy systems.
- The behavior of fluids.
- The design of machines and components.
- The selection of machine components and engineering measurements.

The mechanical engineering technology program has a practice-based approach and uses both laboratories and industry projects to make mechanical engineering "real" to students. Engineering, math and science principles are applied to the solution of technical problems in a lecture/laboratory environment.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) website.

Additional Program Fee: Yes

Second Language Requirement: No

Minimum Math Requirement: MAT 265 - Calculus for Engineers I

**Career Opportunities:** 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, 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>

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SIM 295

480/727-1584

## Operations Management Technology, BS (TSOMTBS)

**Program Description:** The B.S. in operations management technology degree program prepares students for supervisory and administrative positions within a broad range of industries. Course work includes:

- Economics.
- Effective decision making.
- Ethical studies.
- Finance.
- Human resource management.
- Industrial organization.
- International management.
- Labor relations.
- Lean manufacturing.
- Legal issues in technology.
- Marketing.
- Operations management.
- Project management.
- Quality management.
- Safety management.

Students without previous work experience are encouraged to complete an industry internship before graduation.

Students from western states who select this major may be eligible for a reduced nonresident tuition rate at a tuition 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>) Web site.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement: MAT 170 - Precalculus

**Career Opportunities:** Career opportunities for graduates with a degree in operations management technology include, but are not limited to, positions in technical operations, technical sales, municipal management, industrial management, quality control, industrial planning, design, customer relations, personnel training and development. Degree outcomes advance careers in business and industry to include the manufacturing, healthcare and service sectors.

### Contact Information:

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TECH 102

480/727-1781

## Undergraduate Exploratory Programs (Program Descriptions) University College



### **Exploratory Health & Life Sciences, Pre-Prof/E (UCHSCIEXPL)**

**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 included in this exploratory track, reference the Major Map.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** Career opportunities are specific to the ultimate major of choice.

**Admission Requirements:** This is not a degree granting major. Transfer students with more than 45 transfer hours will not be admitted to this program and should select a different major on the application for admission.

**Contact Information:**

University College  
<http://uc.asu.edu/>  
exploratory@asu.edu  
480/965-4464

### **Exploratory Humanities, Fine Arts & Design, Pre-Prof/E (UCHUFAEXPL)**

**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 included in this exploratory track, reference the Major Map.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** Career opportunities are specific to the ultimate major of choice.

**Admission Requirements:** This is not a degree granting major. Transfer students with more than 45 transfer hours will not be admitted to this program and should select a different major on the application for admission.

**Contact Information:**

University College  
<http://uc.asu.edu/>  
exploratory@asu.edu  
480/965-4464

### **Exploratory Math, Physical Sciences, Engineering & Technology, Pre-Prof/E (UCEMTPEXPL)**

**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 included in this exploratory track, reference the Major Map.

Additional Program Fee: No

Second Language Requirement: No

**Career Opportunities:** Career opportunities are specific to the ultimate major of choice.

**Admission Requirements:** This is not a degree granting major. Transfer students with more than 45 transfer hours will not be admitted to this program and should select a different major on the application for admission.

**Contact Information:**

University College  
<http://uc.asu.edu/>  
exploratory@asu.edu  
480/965-4464

## **Exploratory Social & Behavioral Sciences, Pre-Prof/E (UCSBSEXPL)**

**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 included in this exploratory major, reference the Major Map.

Additional Program Fee: No

Second Language Requirement: No

Minimum Math Requirement:

**Career Opportunities:** Career opportunities are specific to the ultimate major of choice.

**Admission Requirements:** This is not a degree granting major. Transfer students with more than 45 transfer hours will not be admitted to this program and should select a different major on the application for admission.

**Contact Information:**

University College

<http://uc.asu.edu/>

[exploratory@asu.edu](mailto:exploratory@asu.edu)

480/965-4464

## Undergraduate Programs – Other (Program Descriptions)

### Pre-Health/Pre-Med Professions, (LAMEDPRE)

**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 College of Liberal Arts and Sciences health career services office provides ongoing academic career advising for pre-health students who wish to pursue a career in:

- Chemistry.
- Medicine.
- Optometry.
- Pharmacy.
- Physical therapy.
- Podiatry.

Additional Program Fee: Yes

Second Language Requirement: No

**Career Opportunities:** The health career services 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:**

Liberal Arts and Sciences, College of  
Dean, College of Liberal Arts and Sciences  
<http://prehealth.asu.edu/>  
prehealth@asu.edu  
FULTN 135  
480/965-2365

### Pre-law, (LALAWPRE)

**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. At the point that the student is ready to take the LSAT and begin the application process, he or she is encouraged to meet with a pre-law professional either in the student's major or in FULTN 135.

Additional Program Fee: No

Second Language Requirement: No

**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:**

Liberal Arts and Sciences, College of  
Dean, College of Liberal Arts and Sciences

<http://prelaw.asu.edu/>

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FULTN 135

480/965-2365