

UNDERGRADUATE PROGRAMS

Minors (Program Descriptions and Requirements)

African and African American Studies Minor LAAFRMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
African and African American Studies Program

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 Requirement: The minor requires 18 semester hours. All African and African American Studies minors must take the following six core hours:

AFH 300 Precolonial Africa (3)
AFS 200 Introduction to African and African Diaspora Studies (3)

Choose one of the following regional courses (3)

AFH 319 Black Experience in Latin America (3)
AFR 210 Introduction to African American Studies C (3)
AFS 340 The Making of Modern Africa (3)
AFS 355 Democracy and Civil Society in Africa (3)
Related courses* (9)

* Nine semester hours are required, with one 300 or 400 level course from each of the following thematic areas: Culture and Literature; Politics and Governance; and Family, Gender, and Society. At least 50 percent of the course content (which may be AFH or AFS) must deal with African peoples inside and outside the African continent. At least nine of the 18 semester hours in this minor must be completed at ASU.

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.

Aging and Lifespan Development Minor HSALDMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Description: The Aging and Lifespan Development minor is designed to explore the study of aging from an interdisciplinary perspective.

Program Requirement: The minor in Aging and Lifespan Development requires 18 semester hours of course work. Students select two of the three aging and lifespan development core courses and four additional aging-related courses that are approved as electives. The Aging and Lifespan Development program allows double counting of courses from the student's major in the minor; however, students should consult with their major department to determine if it has more stringent requirements. A 2.50 GPA or higher must be earned in the six courses. Undergraduates may begin taking courses for the minor upon completion of 56 semester hours with a minimum cumulative GPA of 2.00.

Core Courses:

GRN 400 Perspectives on Aging SB (3)

Choose one of the following courses (3)

GRN 420 Health Aspects of Aging SB* (3)

PGS 427 Psychology of Aging SB (3)

Electives** (12)

Total 18

*An approved course can be substituted.

**All courses carrying a GRN prefix can be counted as elective courses in the program. A list of elective courses carrying other disciplinary prefixes that may be used toward completion of the minor and certificate in gerontology is available from the Aging and Lifespan Development Program office.

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.

American Indian Studies Minor LAAISMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

American Indian Studies Program

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 Requirement: Fifteen semester hours are required, including AIS 180, 285 and 380 and six elective semester hours from either of the two areas of emphasis. 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) 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: 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: <http://www.asu.edu/clas/americanindian/POS.htm>.

American Studies Minor ASAMSMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Division of Humanities, Arts, & Cultural Studies

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 Requirement: The minor consists of 18 semester hours, 12 of which must be upper-division hours:

AMS 301 Introduction to American Studies L (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)

AMS 330 Introduction to American Lives HU (3)

Supporting Courses

Select two courses (six semester hours) 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 and sign the minor check sheet and adjust their Declaration of Graduation to have the minor added to their official record. 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: http://newcollege.asu.edu/programs/amer_studies/minor_certs/index.shtml.

Anthropology Minor LAASBMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of Human Evolution and Social Change

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 which 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 Requirement: The Anthropology minor requires a minimum of 18 semester 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 semester 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, and
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) 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: 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: <http://shesc.asu.edu/node/252>.

Applied Biological Sciences Minor TSABSMIN

APPLIED ARTS AND SCIENCES, SCHOOL OF

Department of Applied Biological Sciences

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 Requirement: The Applied Biological Sciences minor consists of 24 semester hours, including BIO 187 General Biology I, BIO 188 General Biology II, and at least 15 hours selected with the approval of an advisor; at least 12 hours must be in the 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: 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: http://www.poly.asu.edu/saas/appliedbiologicalsciences/abs_minor.html.

Applied Psychology Minor ECPSYMIN

APPLIED ARTS AND SCIENCES, SCHOOL OF
Faculty of Applied Psychology

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

Program Requirement: The minor in applied psychology consists of 22 semester 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)

* This PSY course is offered only by the Polytechnic campus. All other PSY courses listed above are offered by the Polytechnic and Tempe campuses.

A maximum of three semester hours from the following courses can be used to satisfy minor requirements:

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.

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: <http://www.poly.asu.edu/saas/minors/>.

Architectural Studies Minor ARSTDMIN

DESIGN, COLLEGE OF
School of Architecture and Landscape Architecture

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 Requirement: A minimum of 18 semester hours are required for the minor.

Required Courses:

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 L/HU, G, H (3)
APH 314 History of Architecture II L/HU, G, H (3)
Total 12

Six additional semester hours of electives in the architectural history and theory concentration must be selected from the following list for a total of 18 semester hours of which 12 hours must be taken at the 300 or 400 level:

ANP 494 Special Topics (1-3)
APH 300 World Architecture I/Western Cultures HU, G (3)
APH 304 American Architecture (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 446 20th-Century Architecture I HU (3)
APH 447 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)
LPH 311 History of Contemporary Landscape Architecture (3)
LPH 411 Theory of Landscape Architecture (3)
LPH 310 History of Landscape Architecture H (3)
LPH 420 Theory of Urban Design (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 be counted toward the minor. Students pursuing the BS 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: 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: <http://design.asu.edu/sala/salaminors.shtml>.

Art History Minor FAARTHMIN

ARTS, HERBERGER COLLEGE OF THE
School of Art

Program Requirement: The School of Art offers a minor in Art History consisting of 18 semester 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 2.00 is required. Courses may not be double counted in a major and the minor, and a minimum of 12 semester hours of resident credit at the Tempe campus is 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 four required courses:

- ARS 101 Art from Prehistory Through Middle Ages HU, H (3)
- ARS 102 Art from Renaissance to Present HU, H (3)
- 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-semester-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: <http://art.asu.edu/undergraduate/minorinfo.html>.

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.

Asian Languages (Chinese/Japanese) Minor MINOR47

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of International Letters and Cultures

Program Requirement:

Each minor in Asian Languages (Chinese/Japanese), consists of 18 semester hours, of which 12 semester hours must be in the upper division. 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.

Chinese Required:

- Two CHI 200-level courses (6)
- CHI 313 Third-Year Chinese I G (3)

CHI 314 Third-Year Chinese II G (3)

Consult with the departmental advisor for an additional six hours of Chinese course credit.

Japanese Required:

Two 200-level JPN courses (6)

JPN 313 Third-Year Japanese I G (3)

JPN 314 Third-Year Japanese II G (3)

Consult with the departmental advisor for an additional six semester hours of JPN courses.

Enrollment Requirements:

Students in most majors may pursue one or more minors and, upon successful completion of the prescribed course work, have that accomplishment officially recognized on the ASU transcript at graduation if: the college and/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: <http://www.asu.edu/clas/silc/academics/undergraduate/degrees/>.

Astronomy Minor LAASTMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

School of Earth and Space Exploration

Program Requirement: The minor in Astronomy consists of a minimum of 24 semester hours. At least 12 hours must 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 (4)

PHY 150 Physics I SQ (4)

----or----

PHY 121 University Physics I: Mechanics SQ*** (3) and PHY 122 University Physics Laboratory I SQ*** (1)

Choose between the course combinations below (4)

PHY 151 Physics II SQ (4)

----or----

HY 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)

Total 24

- * 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

Electives are chosen with approval of an astronomy advisor from upper division courses in physics and astronomy.

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://sese.asu.edu/students>.

Biochemistry Minor LABCHMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Department of Chemistry and Biochemistry

Program Requirement: A minor in Biochemistry is awarded to students who complete 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)
Minimum total 25

* CHM 117, 118, 333, 334, 337, and 338 are strongly recommended for qualified students

** CHM 345 may be taken in place of CHM 341

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

Biological Sciences Minor LABIOMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of Life Sciences

Description: The Biological Sciences minor is designed to provide students interested in biology with a flexible curriculum that can be tailored to their interests.

Program Requirement: The minor consists of 24 semester hours, including BIO 187 General Biology I and BIO 188 General Biology II. PLB 200 Biology of Plants and PLB 201 Biology of Plants Laboratory or MIC 206 Microbiology Laboratory and MIC 220 Biology of Microorganisms may together be substituted for BIO 187 or 188. Alternatively, MBB 245 Cellular and Molecular Biology may be substituted for BIO 188. The remaining 16 hours are selected by the student with the approval of an advisor. At least 12 of these 16 hours must be in upper-division courses in the life sciences. Courses not available for credit in the Life Science majors cannot be used for the minor (e.g., BIO 100 The Living World and BIO 201 Human Anatomy and Physiology I). This minor is not available to students majoring in the life sciences.

Any one of these combinations may be used:

BIO 187 and BIO 188
BIO 187 and PLB 200 and 201
BIO 188 and PLB 200 and 201
BIO 187 and MIC 206 and 220
BIO 188 and MIC 206 and 220
BIO 187 and MBB 245.

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: http://sols.asu.edu/ugrad/degree_prog/index.php.

Business Minor BABUSMIN

BUSINESS, W. P. CAREY SCHOOL OF
W. P. Carey School of Business

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 broad range of topics important to managers.

Program Requirement: Students must complete 36 semester hours of the specified business courses with a grade of C 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 semester 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 hours)

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
CIS 220 Programming Concepts for Accountancy Majors
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 & 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: <http://wpcarey.asu.edu/up/current-students/academics/minors/business-minor.cfm>.

Chemistry Minor LACHMMIN
LIBERAL ARTS AND SCIENCES, COLLEGE OF
Department of Chemistry and Biochemistry

Program Requirement: A minor in Chemistry is awarded to students who complete the following required courses:

CHM 113 General Chemistry I SQ1 (4)
CHM 116 General Chemistry II SQ (4)
CHM 325 Analytical Chemistry (3)
CHM 326 Analytical Chemistry Laboratory (1)

Choose between the course combinations below (8)

BCH 361 Principles of Biochemistry (3)
BCH 367 Elementary Biochemistry Laboratory (1)
CHM 231 Elementary Organic Chemistry SQ 2 (3)
CHM 235 Elementary Organic Chemistry Laboratory SQ 2 (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)

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)

Total 24

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

Communication Minor LNACOMMI

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Hugh Downs School of Human Communication

Program Requirement: The minor in Communication consists of 18 semester 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, APAS, AAAS, Chicana/Chicano Studies, or AIS (6)

Nine of the 18 semester 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 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:

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: <http://www.asu.edu/clas/communication/undergraduate/programinfo/minor/>.

Communication Studies Minor HSCMNMIN

New College of Interdisciplinary Arts and Sciences

Division of Social and Behavioral Sciences

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

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 semester hours are allowed from lower-division course work.

Program Requirement: The minor consists of 18 semester hours of Communication Studies courses. Students wishing to pursue a minor must meet with a Communication Studies faculty advisor to construct a minor that reflects a particular area of specialty and interest. At least 12 semester 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: 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: http://chs.asu.edu/program_minors/comm_studies.php.

Computational Mathematical Sciences Minor LACMSMIN

Liberal Arts and Sciences, College of

Department of Mathematics and Statistics

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 Requirement: The minor in Computational Mathematical Sciences consists of a minimum of 18 semester hours. Required courses are the following:

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)
Total 18

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: http://math.asu.edu/undergrd/degree_opt.html.

Dance Minor FADANMIN

ARTS, HERBERGER COLLEGE OF THE
Department of Dance

Description: The Department 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. Contemporary technique, performance and choreography define the core of the program, and the rich educational experience is further enhanced by studies in dance cultures, music, digital media, dance history, philosophy and criticism, movement science, somatics, and stage and screen production.

Program Requirement: The department offers a minor in Dance consisting of 18 semester 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. Students must maintain an overall cumulative GPA of 3.00 or higher for Dance minor courses.

Additional Dance minor requirements include the following:

Choose from the following courses (3):

DAH 101 Introduction to Dance G (3)
DAH 201 Dance in World Cultures HU, G (3)

Choose from the following courses (3):

DAH 301 Philosophy and Criticism of Dance L/HU (3)
DAH 302 Cross-Cultural Dance Studies L/HU, G (3)
DAH 401 Dance History HU (3)

Choose from the following courses (4):

DAN 130 Dance (2)
DAN 194 Special Topics (2)
DAN 294 Special Topics (2)
DAN 394 Special Topics (2)
Dance electives* 8

Total 18

* Topics include Modern, Ballet, Jazz, Argentine Tango, Capoeira, Country Western, Dances of India, Tai Chi, Hip Hop, Latin Salsa, Latin/Swing/Ballroom, Pilates/Yoga, Oriental/Belly Dancing, and Dances of Africa. For more information, contact the Herberger Student Academic Services office.

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: <http://dance.asu.edu/undergraduate/faq.htm>.

Design Studies Minor ARDSNMIN

DESIGN, COLLEGE OF

Department of Industrial Design

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 Bachelor of Interdisciplinary Studies degree.

Program Requirement: Courses selected must satisfy the minimum requirement of 18 semester hours for the minor. Twelve of the semester 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 Land Arch. HU (3)
APH 598 South American Architecture

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 Process and Design (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: 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:
<http://design.asu.edu/students/minors.shtml>.

Economics for Students Planning a Career in Law Minor LAECNLMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Economics

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 Requirement: This minor requires 18 semester hours of course work that includes ECN 211, 212, 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: 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:
<http://wpcarey.asu.edu/ecn/advising.cfm>.

Economics Minor LAECNMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Economics

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 Requirement: This minor (and BIS area of concentration) requires 18 semester 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: 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:
<http://wpcarey.asu.edu/ecn/advising.cfm>.

English Minor ASENGMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Division of Humanities, Arts, & Cultural Studies

Program Requirement: The minor in English requires 21 semester hours in English, at least nine of which must be in upper-division courses.

Lower-Division Required Courses

- ENG 221 Survey of English Literature HU (3)
- ENG 222 Survey of English Literature HU (3)
- ENG 241 Literatures of the United States to 1860 HU (3)
- ENG 242 Literatures of the United States, 1860 to Present HU (3)

Upper-Division Required Courses

- ENG 311 Persuasive Writing L (3)
- ENG 323 Rhetoric and Grammar L (3)
- ENG 421 Shakespeare HU (3)

Total 21

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 and sign the minor check sheet and adjust their Declaration of Graduation to have the minor added to their official record. 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: http://newcollege.asu.edu/programs/english/minor_certs/minor.shtml.

English Minor with a Concentration in Linguistics LAENGMINN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of English

Program Requirement: The minor in English with a concentration in linguistics consists of 24 semester 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 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/english/>.

English Minor with a Concentration in Literature LAENGMINT

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of English

Program Requirement: The minor in English with a concentration in literature consists of 24 semester hours.

Required course:

ENG 200 Critical Reading and Writing About Literature L/HU (3)

Distribution Courses

Choose 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

Note: At least one of these courses must be at the 400-level. To complete the 24 semester hours, students chose electives from among the department's offerings. At least 12 of the 24 hours must be upper-division courses. 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 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/english/>.

Ethnic Studies Minor ASETHMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Division of Humanities, Arts, & Cultural Studies

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 Requirement: The minor consists of 21 semester 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 semester 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)

Total 21

* 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 and sign the minor check sheet and adjust their Declaration of Graduation to have the minor added to their official record. 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: http://newcollege.asu.edu/programs/erfns/minor_cert/minor.shtml.

Family and Human Development Minor LAFASMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of Social and Family Dynamics

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 Requirement: The minor in Family and Human Development consists of 18 semester hours in which students specialize in family studies/child development. At least 12 of the 18 semester 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)
Total 9

Three courses (or nine semester 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: <http://www.asu.edu/clas/ssfd/undergrad/minor.html>.

Film and Media Production Minor FAFMPMIN

ARTS, HERBERGER COLLEGE OF THE

School of Theatre and Film

Contact: <http://theatrefilm.asu.edu> | theatre@asu.edu, theatrefilm@asu.edu, or film@asu.edu | GHALL 232 | 480/965-5337

Description: As a student pursuing this minor, you will study the basic production processes of film while exploring its history and contemporary social issues.

Program Requirement: The school offers a minor in Film and Media Production consisting of 15 semester hours of course work. The following courses are required:

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, Part 1 (3)

THE 403: Independent Film (3)

Upper division elective in FMP, THP, or THE related to film and media production (3)

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. All prerequisites for the minor courses must be met (see course listings). Transfer students may transfer up to six semester hours toward their minor. A grade of C (2.00) or higher is required for all courses in the minor.

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.

Enrollment Requirements: Contact the Herberger College of the Arts advising office for information: <http://theatrefilm.asu.edu/students/current/undergrad-minors.php>.

Film and Media Studies LAFMSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Film and Media Studies

Contact: <http://film.asu.edu/> | Language & Literature 641 | 480-965-6747

Program Requirement: 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)

Plus three upper division courses from the areas of emphasis course list. For more information contact the Film and Media Studies advisor at 480-965-6747.

Food and Nutrition Management Minor ECFNTMIN

APPLIED ARTS AND SCIENCES, SCHOOL OF
Department of Nutrition

Description: This minor program 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 Requirement: The minor requires that students take the following courses:

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)
Total 18

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: <http://www.poly.asu.edu/saas/nutrition/undergraduate/minors.html>.

French Minor LAFREMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of International Letters and Cultures

Program Requirement: The French minor requires 18 upper-division semester 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

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: 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: http://www.asu.edu/clas/silc/academics/undergraduate/degrees/minor_French.html.

Geography Minor LAGCUMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of Geographical Sciences

Description: The mission of the School of Geographical Sciences lies in social and cultural dynamics of space and place, complex land use systems, climate and environmental change, and GIScience.

Program Requirement: 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:

GCU 102 Introduction to Human Geography SB (3)
GPH 111 Introduction to Physical Geography SQ (4) or GPH 411 Physical Geography (3)
Total 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: 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: <http://geography.asu.edu/education/degrees.php>.

Geological Sciences Minor LAGLGMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of Earth and Space Exploration

Contact: sesu.asu.edu | sesinfo@asu.edu | PSF 686 | 480/965-5081

Program Requirement: A minor in Geological Sciences is awarded to students who complete a minimum of 21 hours of geological science courses. Required courses are as follows:

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)
Total 15

*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: 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: <http://sese.asu.edu/students>.

German Minor LAGERMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of International Letters and Cultures

Program Requirement: Required:

- 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)
- 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 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: <http://www.asu.edu/clas/silc/ger/programs.html>.

Global Studies LASGSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of Global Studies

Contact: <http://www.asu.edu/clas/globalstudies/> | globalstudies@asu.edu | West Hall, Rm. 140 | 480-727-8286

Description: Students may pursue a minor in Global Studies.

Program Requirement: The Global Studies minor consists of 18 credit hours, with at least 12 hours in upper division courses. Required courses are SGS 103 or SGS 394 Contemporary Global Trends. 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 school advisor.

History Minor LAHISMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Department of History

Program Requirement: The History minor consists of 18 semester 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 Department of History 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:

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: <http://www.asu.edu/clas/history/undergrad/undergrad.html>.

History Minor ASHISMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Division of Humanities, Arts, & Cultural Studies

Program Requirement: The minor in History consists of 18 semester hours of history course work with a grade of C (2.00) or higher, of which six semester 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 (6)

--- or ---

AMS 310 History of American Systems to 1865 L, C, H (3)

or AMS 320 American Cultural History I SB, H (3)

or HIS 303 American Cultural History I SB, H (3)

or HIS 305 History of American Systems to 1865 L, C, H (3)

AMS 311 History of American Systems since 1865 II H (3)

or AMS 321 American Cultural History II SB, H (3)

or AMS 330 Introduction to American Lives HU (3)

or HIS 304 American Cultural History II SB, H (3)

or HIS 306 History of American Systems since 1865 H (3)

--- or ---

HIS 355 World History to 1500 G, H (3)

HIS 356 World History since 1500 G, H (3)

Upper Division Requirements:

HIS 300 Historical Methods L, H (3)
History Electives (9)
Total 18

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 and sign the minor check sheet and adjust their Declaration of Graduation to have the minor added to their official record. 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: http://newcollege.asu.edu/programs/history/minor_certs/minor.shtml.

Human Nutrition Minor ECNTRMIN

APPLIED ARTS AND SCIENCES, SCHOOL OF
Department of Nutrition

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 Requirement: The minor requires that students take the following courses:

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)
Total 18

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: <http://www.poly.asu.edu/saas/nutrition/undergraduate/minors.html>.

Interdisciplinary Organizational Studies Minor ASIOSMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Department of Social and Behavioral Sciences

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 Requirement: The minor consists of 21 semester 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 POL 435 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)
Electives (Other approved courses may be used to secure credit.)

Cluster 1: Courses Focused on Organizations

Choose two from the following courses (6)

CMN 450 Theory and Research in Organizational Communication SB** (3)
CMN 451 Employee Participation Processes in Organizations** (3)
CMN 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.
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 (3)

CMN 463 Cultural and Intercultural Communication Theory and Research SB, G3 (3)
PGS 480 Cross-Cultural Social Psychology SB, G (3)
POL 435 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 350 Race, Class, and Gender SB, C (3)
WST 487 Gender and International Development SB, G (3)

* SBS advisor's approval is required.

** Prerequisites CMN 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:
http://newcollege.asu.edu/programs/interdisciplinary_org_studies/.

Interior Design Minor ARINTMIN

DESIGN, COLLEGE OF

Department of Interior Design

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 Department 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 Requirement: The selected courses satisfy the minimum requirement (18 semester 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)
Total 18

The minor is open to students of all majors. 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: 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:
<http://design.asu.edu/students/minors.shtml>.

Italian Minor LAITAMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

School of International Letters and Cultures

Program Requirement: The Italian minor requires 18 upper-division semester 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:

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: 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: http://www.asu.edu/clas/silc/academics/undergraduate/degrees/minor_Italian.html.

Justice Studies Minor LAJUSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of Justice and Social Inquiry

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

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

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

A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.

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

Please contact the department for more information: <http://sjsi.clas.asu.edu/page/home>.

Kinesiology Minor LAKINMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Department of Kinesiology

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 Requirement: The minor in Kinesiology consists of the 21 semester hours shown below and 15 to 21 semester 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 200 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)

KIN additional coursework* (9)

Total 21

*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: 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: <http://www.asu.edu/clas/kines/>.

Landscape Architecture Studies Minor MINOR11

DESIGN, COLLEGE OF

School of Architecture and Landscape Architecture

Contact: <http://design.asu.edu/sala> | design.advising@asu.edu | CDN 162 | 480/965-3536

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. A minimum of 18 semester hours are required for the minor.

Program Requirement:

A minimum of 18 semester hours are required for the minor of which 12 semester hours must be taken at the 300- or 400- level.

Required Courses:

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

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

LPH 310 History of Landscape Architecture (3)

LPH 311 Contemporary Landscape Architecture (3)

Total 12

Six additional semester hours of electives in the landscape architecture history and theory concentration must be selected from the following list for a total of 18 semester hours of which 12 hours must be taken at the 300- or 400- level:

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 & Urban Planning (3)
LPH 411 Landscape Architecture Theory & Criticism (3)
LPH 412 Landscape Ecology & 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 and 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 be counted toward the minor. Students pursuing the BS in Design in Architecture must petition the school to request a substitution for any core courses that are also included in the Landscape Architecture minor.

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

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

A student wishing to pursue a specific minor should consult an academic advisor in the unit offering that minor to ensure that an appropriate set of courses is taken. The student should also consult with an academic advisor in the college or department of his or her major to make sure the college or department of the major allows the recognition of the minor.

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

Please contact the department for more information: <http://design.asu.edu/sala/salaminors.shtml>.

Landscape Studies Minor ARLNDMIN

DESIGN, COLLEGE OF

School of Architecture and Landscape Architecture

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 Requirement: Students must complete a minimum of 18 semester hours of which 12 hours must be taken at the 300 or 400 level.

Required Courses:

ALA 102 Architecture and Landscape Architecture and Society HU, G (3)
LPH 310 History of Landscape Architecture H (3)
LPH 311 Contemporary Landscape Architecture HU (3)

Nine additional semester hours of electives in the landscape architectural history and theory concentration must be selected from the following list for a total of 18:

- LAP 485 International Field Studies in Planning G (3)
- LPH 394 Special Topics (3)
- LPH 410 Social Factors in Landscape and Urban Planning (3)
- LPH 411 Landscape Architecture Theory and Criticism L (3)
- LPH 412 Landscape Ecology and Planning (3)
- LPH 413 Southwest Landscape Interpretation (3)
- LPH 494 Special Topics (3)
- LPH 499 Individualized Instruction* (3)

* This course requires a petition to the School of Architecture and Landscape Architecture. A minimum GPA of 3.00 in minor courses is required to earn the minor in Landscape Architecture Studies. In addition, students may not use a core course to be counted toward the minor. Students pursuing the BSD degree in Architecture Studies 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: 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: <http://design.asu.edu/sala/salaminors.shtml>.

Life Sciences Minor ASLSCMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Integrated Natural Sciences

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 Requirement: Required Courses:

- BIO 187 General Biology I SG (4)
- BIO 188 General Biology II SQ (4)
- CHM 113 General Chemistry SQ (4)
- CHM 116 General Chemistry II SQ (4)
- LSC 320 Fundamentals of Ecology (3)
- LSC 322 Fundamentals of Ecology Laboratory (1)
- LSC 347 Fundamentals of Genetics (3)
- LSC 348 Fundamentals of Genetics Laboratory (1)
- LSC 353 Cell Biology (3)
- LSC 355 Cell Biology Laboratory (1)
- Total 28

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: http://newcollege.asu.edu/depts_schools/dins/.

Materials Science and Engineering ESMSEMIN

ENGINEERING, IRA A. FULTON SCHOOL OF

School of Materials

Contact: <http://som.asu.edu> | som@asu.edu | ECG 303 | 480-727-9311

Description: The Minor in Materials Science and Engineering is designed to allow other science and engineering majors an in-depth understanding of materials, including their structure, processing, properties, performance, and their relationships.

Program Requirement: Students would be required to take six courses (20-21 credits), listed below:

CHM 114 (4 cr) or CHM 113 (4 cr) & 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)
MSE 3xx two 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)
MSE 3xx any 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.

Mathematics Minor LAMATMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of Mathematics and Statistics

Program Requirement: The minor in Mathematics consists of a minimum of 18 semester hours. Required courses are as follows:

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)
Total 9

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: http://math.asu.edu/undergrd/degree_opt.html.

Mathematics Minor ASMATHMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Mathematical Sciences and Applied Computing

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, as well as those who are preparing for further graduate study.

Program Requirement: The minor in Mathematics consists of a minimum of 27 semester hours, of which nine semester hours must be taken in the Mathematical Sciences and Applied Computing Department.

Required Courses:

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* (9)

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)

Total 27

* Select three of these courses, or other approved course, in consultation with a departmental advisor.

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

Media Analysis Minor CSCMOMINA

JOURNALISM, WALTER CRONKITE SCHOOL OF

Walter Cronkite School of Journalism and Mass Communication

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 Requirement: The Minor of Media Analysis consists of 18 semester 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 semester 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)
OR
MCO 418 History of Mass Communication SB, H (3)
MCO 498 Media Analysis Senior Seminar (3)

In addition, students select three additional courses (nine hours) from the list of electives offered by the Walter 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.)

MCO 200 Introduction to the Electronic Media (3)
MCO 240 Media Issues in American Pop Culture (3)
MCO 418 History of Mass Communication SB, H (3)
MCO 430 International Mass Communication G (3)
MCO 435 Emerging Media Technologies (3)
MCO 440 Applied Media Research (3)
MCO 450 Visual Communication. HU (3)
MCO 460 Race, Gender, and Media C (3)
MCO 473 Sex, Love, and Romance in the Mass Media SB (3)

Or Special Topic courses such as:

MCO 494 Sports and Media (3)

MCO 494 War and the Mass Media (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: http://cronkite.asu.edu/undergrad/minor_media_analysis.php.

Music Minor FAMUSMIN
ARTS, HERBERGER COLLEGE OF THE
School of Music

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 Requirement: The School of Music offers a minor in Music consisting of 21 semester hours of course work. A minimum grade of C (2.00) is required in all courses.

Required Courses:

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)
Total 9

* The online version of this course is required

Music History

Choose two of the following five courses (6):

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):

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)

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: <http://music.asu.edu/students/current/undergrad/minorinfo.php>.

Nonprofit Administration Minor PPNLMMIN

PUBLIC PROGRAMS, COLLEGE OF

School of Community Resources and Development

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 United States 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 Requirement: Completion of a Nonprofit Minor in the School of Community Resources & Development requires the following:

1. NLM 160, NLM 220,
2. 15 hours of graded classroom course work (no internship, no independent study),
3. 9 hours of course work at the upper division level, from the approved list,
4. A minimum grade of C is required for all classes in the minor,
5. 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,
2. A major, or pre-major, other than Nonprofit Leadership & Management, BS,
3. Must be a junior to take 400 level courses.

Course Selection: (approved list)

Required Courses:

NLM 160 Voluntary Action and Community Leadership (3)
NLM 220 Introduction to Nonprofit Organizations (3)

Choose three courses from the list below:

NLM 300 Fund Raising and Resource Development (3)
NLM 301 Sustainable Communities (3) (Pre- or Corequisite: NLM 160 (or 191) with a grade of c or higher.)
NLM 302 Inclusive Community Development C (3) (Pre- or Corequisite: NLM 160 (or 191) with a grade of c or higher.)
NLM 310 Volunteer 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: 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: <http://scrd.asu.edu/portal/programs/undergraduate/nonprofit-leadership-management-nlm>.

Parks and Protected Area Management Minor PPRMMINT

PUBLIC PROGRAMS, COLLEGE OF

School of Community Resources and Development

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 Requirement: Completion of a Parks and Protected Area Management minor in the School of Community Resources and Development requires the following:

1. PRM 120; PRM 370; PRM 380; TDM 480,
2. 15 hours of graded classroom course work (no internship, no independent study),
3. 12 hours of course work at the upper-division level, from the approved list,
4. A minimum grade of C is required for all classes in the minor,
5. 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,
2. A major, or pre-major, other than Parks and Recreation Management and Tourism Development and Management,
3. Must be a junior to take 400-level courses. Course Selection: (approved list)

Required Courses:

PRM 120

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. Students pursuing a Bachelor of Science in Parks and Recreation Management or a Bachelor of Science in Tourism Development and Management are not eligible to complete this minor. Please contact the department for more information: <http://scrd.asu.edu/portal/programs/undergraduate>.

Philosophy Minor LAPHIMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Department of Philosophy

Program Requirement: A minor in Philosophy consists of 18 semester hours, of which at least 12 must be in the upper division and approved by an advisor in the department. 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: 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: <http://www.asu.edu/clas/philosophy/minor.htm#minor>.

Philosophy Minor ASPHIMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Division of Humanities, Arts, & Cultural Studies

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

1. a knowledge of the most important problems and ideas in the philosophical areas studied,
2. a capacity for critical thinking and analytical reasoning, and
3. the ability to present one's positions effectively through oral and written communication.

Program Requirement: The minor in Philosophy consists of 21 semester hours of philosophy course work, of which 15 must be upper-division hours. Fifteen semester hours of campus resident credit is required. Only courses in which the student earns a grade of C (2.00) or higher will fulfill requirements for the minor. Courses are to be selected from the following list in consultation with a philosophy advisor to create a coherent and complete program of study.

Minor in Philosophy Course List

- 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 (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: 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: http://newcollege.asu.edu/programs/integrative_studies/minor_cert/philosophy.shtml.

Physics Minor LAPHYMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
Department of Physics

Program Requirement: The minor in Physics consists of a minimum of 29 semester hours.

Required courses:

Choose between the course combinations below (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) (Both PHY 121 and PHY 122 must be taken to secure SQ credit)

Choose between the course combinations below (4)

PHY 151 Physics II SQ (4)
Or PHY 131 University Physics II: Electricity and Magnetism SQ (3)
PHY 132 University Physics Laboratory 2 SQ (1) (Both PHY 131 and PHY 132 must be taken to secure SQ credit)
PHY 201 Mathematical Methods in Physics I CS (3)
PHY 252 Physics III SQ (4)
PHY 302 Mathematical Methods in Physics II (2)
PHY 310 Classical Particles, Fields, and Matter I (3)
PHY 311 Classical Particles, Fields, and Matter II (3)
PHY 314 Quantum Physics I (3)

Approved electives (to be chosen with approval of the physics advisor from upper-division courses in physics and astronomy) (3)

Total (29)

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: <http://physics.asu.edu/undergraduate/programs.php>.

Political Science Minor LAPOSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of Political Science

Description: Please contact the department for more information: <http://www.asu.edu/clas/polisci/undergraduate/minor.html>.

Program Requirement: The minor in Political Science consists of 18 semester 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:

- 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)

* But not both courses.

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 one D (1.00) grade in a lower-division course may be counted toward the minor. No more than three hours of POS 484 Internship and three hours of POS 499 Individualized Instruction may be applied to the minor.

Political Science Minor ASPOSMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Department of Social and Behavioral Sciences

Contact: <http://www.asu.edu/aad/catalogs/general/w-ncias-socbhvsci.html>

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, as well as to 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, and 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 Requirement: The minor in Political Science consists of 18 semester hours in POL courses, 12 of which must be in upper-division courses.

Minor Requirements

Core Courses (Minimum of Three Upper-Division Hours)

POL 101 Political Ideologies SB (3)
or POL 340 Political Theory SB/HU (3)

POL 110 Government and Politics SB (3)
or POL 310 American National Government: Ideas and Institutions SB, H (3)

POL 160 Global Politics SB, G (3)
or POL 360 World Politics Theory SB, G (3)

Political science electives* (9)

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

Enrollment Requirements: Please contact the department for more information:
<http://newcollege.asu.edu/programs/polisci/minor/>.

Prelaw Minor HSLAWMIN

PUBLIC PROGRAMS, COLLEGE OF

Contact: <http://www.asu.edu/aad/catalogs/general/w-chs-prelaw.html#81788>

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was to be moved to a new academic unit. At the time of publication, the reassignment to a new college was not yet determined.

Description: The Prelaw minor is designed to explore the study of law from an interdisciplinary perspective. Students will take a core of classes that will enhance a student's critical thinking and writing skills. In addition, students will select elective courses for the minor with assistance from the college's Human Services Advising Office and from a faculty member on the college's Prelaw Advising Committee. In general, the courses selected as prelaw minor electives are those that:

1. enhance the student's critical thinking and writing skills,
2. develop the student's knowledge of the law, and
3. enhance the student's understanding of the social, cultural, historical, economic and political development of the law in our society and the world.

The minor is designed for students who plan to attend law school or who contemplate careers in fields closely related to the legal profession. Students who exhibit exceptional critical thinking and writing skills are highly successful in their legal studies. It is expected that students in the minor will be able to think both logically and creatively about the law and its philosophical basis. In addition, students will be able to effectively apply legal principles to various factual problems, a rudimentary part of the case book method of legal study.

Program Requirement: The 18-semester-hour minor in Prelaw consists of nine hours of required courses and nine hours of elective courses to be selected with an advisor. Students may not count classes toward both completion of their major and the Prelaw minor.

Core Classes

Choose three of the following courses (9)

CMN 422 Argumentation, Critical Reasoning, and Public Communication L (3)
CRJ 360 Substantive Criminal Law (3) LES 306 Business Law (3)
POL 470 Law and the Political Order SB (3)

Electives (9)

Total 18

Enrollment Requirements: Please contact the department for more information: http://chs.asu.edu/program_minors/prelaw.php.

Psychology Minor LAPGSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of Psychology

Contact: <http://www.asu.edu/aad/catalogs/general/t-clas-psycho.html#37654>

Description: The Minor in Psychology focuses on appreciating and valuing the life of the mind 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 fundamental 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 inside and outside of Psychology and engage on a daily basis their increasingly complex, information-rich world.

Program Requirement: The minor in Psychology consists of completing the 22 semester hours of course work in the foundations of psychology and the breadth categories described below

Required Courses

Foundation of Psychology Courses:

PGS 101 Introduction to Psychology

PSY 230 Introduction to Statistics

PSY 290 Research Method

Breadth within Psychology

Take one course each from four of the following five clusters (four courses):

Biological

PSY 325

Personality/Mental Health

PGS 315

PGS 466

Cognitive/Learning

PSY 320

PSY 323

PSY 324

Developmental

PGS 341

Social

PGS 306
PGS 350/351

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 hours of required psychology coursework. (Internship credit and Teaching Assistant credit may NOT be used to satisfy this requirement.) For more information, please email psych.advisor@asu.edu.

Psychology Minor ASPGSMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Department of Social and Behavioral Sciences

Contact: <http://www.asu.edu/aad/catalogs/general/w-ncias-socbhvsci.html>

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 Requirement: The minor consists of 22 semester 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 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 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)

Total 22

* At least one choice must be PSY 323, 324, or 325. A maximum of three semester 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) or higher.

Enrollment Requirements: Please contact the department for more information:
http://newcollege.asu.edu/programs/psychology/minor_cert/.

Public Relations and Strategic Communications Minor HSPRSMIN

New College of Interdisciplinary Arts and Sciences

Division of Social and Behavioral Sciences

Contact: <http://www.asu.edu/aad/catalogs/general/w-chs-commstds.html>

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

Description: The Department of Communication Studies 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. The department offers BA and BS degrees in Communication Studies, undergraduate minors in Communication Studies and Public Relations and Strategic Communication, the MA degree in Communication Studies, and a postbaccalaureate certificate in Communication and Human Relations.

Please contact the department for more information: http://chs.asu.edu/program_minors/comm_studies.php.

Program Requirement: 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 semester hours upper-division course work, including nine semester hours of required course work and nine semester hours of electives

Required Core Courses

Choose three of the following courses (9)

- CMN 320 Communication and Consumerism SB (3)
- CMN 329 Persuasion (3)
- CMN 353 Professional Communication (3)
- CMN 454 Rhetorical and Critical Approaches to Public Relations (3)
- Electives (9)

Recreation Management Minor PPRECMIN

PUBLIC PROGRAMS, COLLEGE OF

School of Community Resources and Development

Contact: http://scrd.asu.edu/rec_minor.html

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

1. PRM 120, PRM 424,
2. 15 hours of graded classroom course work (no internship, no independent study),
3. A minimum of nine hours of course work at the upper-division level, from the approved list,
4. A minimum grade of C is required for all classes in the minor,
5. 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,
2. A major, or pre-major, other than Nonprofit Leadership and Management, Parks and Recreation Management or Tourism Development & Management,
3. Must be a junior to take 400-level courses

Course Selection: (approved list)

Required Courses:

PRM 120 Leisure and the Quality of Life (Satisfies General Studies-SB) (3)
PRM 424

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. Students pursuing a Bachelor of Science in Nonprofit Leadership and Management, Bachelor of Science in Parks & Recreation Management or a Bachelor of Science in Tourism Development & Management are not eligible to complete this minor. Please contact the department for more information: <http://scrd.asu.edu/portal/programs/undergraduate/parks-recreation-management-prm/minor-in-recreation-management>.

Religious Studies Minor LARELMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of Religious Studies

Contact: http://www.asu.edu/clas/religious_studies/

Description: Students may pursue the Minor in Religious Studies with regional, national, hemispheric, global, and a variety of thematic emphases.

Program Requirement: The Minor in Religious Studies consists of 18 semester hours, at least 12 of which must be in the upper division. REL 305 is required. For minor verification, students must consult a department advisor.

Enrollment Requirements: Please contact the department for more information:

http://www.asu.edu/clas/religious_studies/undergraduate/major_minor.html.

Religious Studies Minor ASRELMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Division of Humanities, Arts, & Cultural Studies
Contact: http://newcollege.asu.edu/programs/integrative_studies/index.shtml

Description: The minor in Religious Studies consists of 21 semester hours of religious studies course work, of which 18 must be upper-division hours. Fifteen semester hours of campus resident credit is required. 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 religious studies director to create a coherent and complete program of study for the minor.

Program Requirement: Choose one from the following courses (3)

AMS 417 Religious Traditions of the American Southwest C (3)
REL 320 Religion in America HU, H (3)
REL 321 Religion in America L/HU, H (3)
REL 420 Religion in American Life and Thought (3)

Choose two from the following courses (6)

ENG 424 Milton HU (3)
HIS 363 Reformation (3)
REL 305 Ritual, Symbol, and Myth (3)
REL 390 Women and World Religions L/SB, G (3)
or WST 390 Women and World Religions L/SB, G (3)
REL 494 ST: Psychology of Religion (3)
or AMS 494 ST: Psychology of Religion (3)
REL 494 ST: Science and Religion (3)
or IAS 494 ST: Science and Religion (3)
Choose at least one special topics course* (3)

Religious Studies Electives

Choose three additional religious studies courses** (9)

Program total 21

* Select from the following prefixes: AMS, CMN, 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.

** These courses, or other approved courses, must be chosen in consultation with the director, and may include Internship (484) and/or Individual Instruction (499).

Enrollment Requirements: Please contact the department for more information:
http://newcollege.asu.edu/programs/integrative_studies/minor_cert/religious.shtml.

Russian Minor LARUSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of International Letters and Cultures
Contact: <http://www.asu.edu/clas/silc/slav/index.html>

Description: Please contact the department for more information: <http://www.asu.edu/clas/dll/slav/minorlist.html>.

Program Requirement:

Required

- RUS 211 Basic Russian Conversation G (3)
- RUS 212 Basic Russian Conversation G (3)
- RUS 311 Russian Composition and Conversation G (3)
- RUS 312 Russian Composition and Conversation G (3)

Six semester hours of upper-division RUS courses are also required. Course substitutions with other upper-division RUS course are allowed.

Enrollment Requirements: Please contact the department for more information: <http://www.asu.edu/clas/dll/slav/minorlist.html>.

Small Business Minor AGSMBMIN

MANAGEMENT AND AGRIBUSINESS, MORRISON SCHOOL OF
Morrison School of Management and Agribusiness

Contact: <http://www.poly.asu.edu/msma/bua/smbusminor.html>

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

Program Requirement:

- 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-related area course (3)

Total 18

Enrollment Requirements: Please contact the department for more information: <http://poly.asu.edu/msma/bua/smbusminor.html>.

Social and Behavioral Sciences Minor ASSBSMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Department of Social and Behavioral Sciences

Contact: <http://newcollege.asu.edu/programs/sbs/>

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

Program Requirement: The minor consists of 18 semester hours, at least 12 semester hours of which must be in upper-division courses. All courses must be completed with a minimum grade of C (2.00). 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.

Requirements

- 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: Please contact the department for more information:
http://newcollege.asu.edu/programs/sbs/minor_certs/minor.shtml.

Social Welfare Minor LASSWMIN

PUBLIC PROGRAMS, COLLEGE OF

School of Social Work

Contact: <http://ssw.asu.edu/degreeprograms.html>

Description: The minor in Social Welfare is designed for students interested in analyzing complex family, individual, and societal problems in the context of societal values, cultural diversity, and other social and economic variables. The Social Welfare minor prepares students to:

1. enter graduate social work or other professional schools, or
2. attain entry-level employment in non-academic settings.

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 Requirement: Completion of a Social Welfare minor in the School of Social Work requires the following:

1. Eighteen hours of graded classroom course work (no internship, no independent study),
2. A minimum of 12 semester hours of course work at the upper-division level from the approved list,
3. A minimum of 12 semester hours must be resident credit at the Tempe or Downtown Phoenix campus,
4. A minimum grade of C is required for all classes in the minor,
5. Complete SWU 171 as the prerequisite for all upper-division SWU courses,
6. Must be a sophomore to take 300-level courses.

Required Courses:

SWU 171 Introduction to Social Work
SWU 291 Social Service Delivery Systems
SWU 332 Social Policy and Services
SWU 374 Diversity and Oppression in a Social Work Context

Choose two courses from the list below:

SWU 301 Human Behavior in the Social Environment I
SWU 302 Human Biology for Social Workers
SWU 310 Social Work Practice I
SWU 321 Statistics for Social Workers
SWU 340 Human Behavior in the Social Environment II
SWU 498 Pro Seminar

Enrollment Requirements: Please contact the department for more information: <http://ssw.asu.edu/portal/academic>.

Sociocultural Anthropology Minor ASASBMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Department of Social and Behavioral Sciences

Contact: http://newcollege.asu.edu/programs/sociocultural_anthropology/

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 Requirement: The minor requires 18 semester hours, at least 12 of which must be in upper-division courses. Two courses, ASB 311 and SBS 302, are required. The remaining 12 semester 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 semester hours of lower-division courses and three semester hours of ASB 499 Individualized Instruction may also be applied toward the minor.

Upper-Division Required Courses

ASB 311 Principles of Social Anthropology SB, G, H (3)
SBS 302 Qualitative Methods (3)

Choose four from the following* (12)

ASB 102 Introduction to Cultural and Social Anthropology SB, G (3)
ASB 205 Cybercultures SB (3)
ASB 211 Women in Other Cultures HU/SB, G (3)
ASB 311 Principles of Social Anthropology SB, G, H (3)
ASB 319 Indigenous Peoples of North America (3)
ASB 339 Introduction to 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 389 Ethnographic Field Lab (1-6) ASB 394 Special Topics (1-4)
ASB 411 Kinship and Social Organization (3)
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
SBS 205 Cybercultures SB (3)
SBS 301 Cultural Diversity L/SB, C (3)
SBS 410 Topics in Identity/Difference (3)
SBS 430 Topics in Power/Knowledge SB (3)
SBS 440 Family Studies SB (3)
SBS 450 Topics in Local/Global SB, G (3)
SBS 460 Urban Studies SB (3)

* Other approved courses may be selected.

Enrollment Requirements: Please contact the department for more information:
http://newcollege.asu.edu/programs/sociocultural_anthropology/.

Sociology Minor LASOCMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Social and Family Dynamics

Contact: <http://www.asu.edu/clas/ssfd/undergrad/minor.html#soc>

Description: A minor from the School of Social and Family Dynamics exposes students to the basic coursework and issues in the discipline. A minor from SSFD provides an exceptional balance to studies in psychology, justice studies, communication, education, business, and nursing.

The SSFD minors also make excellent complements with other minors to obtain the BIS (Bachelor of Independent Studies) degree. For example, the Global Family option is a combination of geography and family studies minors. Other students have combined SSFD minors with: psychology, justice studies, and business.

Program Requirement: The minor in Sociology requires 18 hours, of which 12 hours must be upper-division courses, with at least six upper-division hours completed at the Tempe campus.

Required courses:

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)

Total 6

The remaining four courses consist of sociology electives.

Enrollment Requirements: Please contact the department for more information:
<http://www.asu.edu/clas/ssfd/undergrad/minor.html>.

Sociology Minor ASSOCMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Department of Social and Behavioral Sciences

Contact: <http://newcollege.asu.edu/programs/sociology/>

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 Requirement: The minor in Sociology requires 21 semester hours in sociology, nine of which must be upper division.

Required Core

SBS 303 Quantitative Methods (3)
SBS 304 Social Statistics I CS (3) or SOC 486 Contemporary Theory SB (3)
SOC 101 Introductory Sociology SB (3) or SOC 301 Principles of Sociology SB (3)
Sociology Electives* (12)

* These courses must be chosen in consultation with the student's advisor.

Enrollment Requirements: Please contact the department.

Spanish Minor LASPAMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF
School of International Letters and Cultures
Contact: <http://www.asu.edu/clas/silc/academics/>

Description: Please contact the department for more information: <http://www.asu.edu/clas/dll/spa/gradpage/minorsub.htm>.

Program Requirement: Each minor in Asian Languages (Chinese/Japanese), German, Italian, and Russian consists of 18 semester hours, of which 12 semester hours must be in the upper division. The Spanish and French minors require 18 upper-division semester 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.

The minor in Spanish requires a minimum of 18 upper-division semester hours.

Required

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)

Electives

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

Spanish Minor ASSPAMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF
Division of Humanities, Arts, & Cultural Studies
Contact: http://newcollege.asu.edu/programs/spanish/minor_certs/minor.shtml

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 Requirement: The minor in Spanish consists of 20 semester hours of Spanish course work, of which 12 semester hours must be in the upper division. All Spanish course work must be completed with a minimum grade of C (2.00) or higher.

Choose one of the following combinations (8)

SPA 201 Intermediate Spanish G (4)
SPA 202 Intermediate Spanish G (4)
Electives* (12)

Total 20

* These 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 and sign the minor check sheet and adjust their Declaration of Graduation to have the minor added to their official record. 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: http://newcollege.asu.edu/programs/spanish/minor_certs/minor.shtml.

Special Events Management Minor HSEVNMIN

Public Programs, College of
School of Community Resources and Development
Contact: http://chs.asu.edu/programs/rec_tour_mgmt/minor/prog_reqs_sem.shtml

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

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 Requirement: The minor consists of six semester hours of required courses and 12 semester hours of electives selected in consultation with a faculty advisor. 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.

Required Core Courses

- RTM 486 Special Events Management (3)
- RTM 487 Special Events Management, Advanced (3)

Electives

Choose four courses from the following* (12)

- RTM 301 Leadership in Recreation and Tourism (3)
- RTM 303 Programming Recreation and Tourism Services (3)
- RTM 304 Recreation and Tourism Areas and Facilities Management L (3)
- RTM 373 Leisure Travel and Tourism SB (3)
- RTM 394 Meeting and Convention Planning (3)
- OR D TDM 345 Meeting and Convention Planning (3)
- RTM 403 Professional Development Seminar (3)
- RTM 404 Marketing Recreation and Tourism (3)
- RTM 451 Grant Writing for Human Service Professionals (3)
- RTM 453 Volunteer Management in Human Service Organizations (3)
- RTM 458 International Tourism G (3)
- RTM 475 Entrepreneurial Recreation and Tourism (3)
- RTM 484 Senior Internship (3)

* Select from these or other approved courses in consultation with the minor advisor.

Enrollment Requirements: Please contact the department for more information:

http://chs.asu.edu/program_minors/rec_tour_mgmt/prog_reqs_sem.php.

Speech and Hearing Science Minor LASHSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of Speech and Hearing Science

Contact: <http://www.asu.edu/clas/shs/ug-minor.html>

Description: The Department of Speech and Hearing Science at Arizona State University offers an undergraduate minor in Speech and Hearing Science through the College of Liberal Arts and Sciences. This is an academic program with emphasis on normal aspects of speech, language, and hearing. For your information, the required courses (as of 2005) are listed below, but students are strongly encouraged to visit an advisor from the Department of Speech and Hearing Science at ASU.

Program Requirement: The minor in Speech and Hearing Science consists of 24 semester 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 courses below

- SHS 367 Language Science SB (3)
- SHS 375 Speech Science (3)
- SHS 376 Psychoacoustics (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: Please contact the department for more information: <http://shs.asu.edu/ug-minor.php>.

Statistics Minor LASTAMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of Mathematics and Statistics

Contact: <http://math.asu.edu/undergrd/index.html>

Description: Please contact the department for more information: http://math.asu.edu/undergrd/degree_opt.html.

Program Requirement: The minor in Mathematics consists of a minimum of 18 semester hours.

Required courses:

- 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)

Total: 18-20

Theatre Minor FATHEMIN

ARTS, HERBERGER COLLEGE OF THE

School of Theatre and Film

Contact: <http://theatre.asu.edu/index.php>

Description: As a student pursuing this minor, you 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, theatre for youth, and film and media production.

Program Requirement: The school offers a minor in Theatre consisting of 22 semester hours of course work.

The following courses are required:

- 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)

Concentration area** (9)

Total: 22

* 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.

** Also required are three upper-division three-hour courses within the same curricular area. Contact the school for options and course requirements.

Courses ordinarily limited to majors only are available to minors on a second-priority basis; that is, minors may not register for these courses early, but are allowed to register after all majors' needs have been met. All prerequisites for the minor courses must be met (see course listings). Transfer students may transfer up to nine semester hours toward their minor. A grade of C (2.00) or higher is required for all courses in the minor.

Enrollment Requirements: Contact the Herberger College of the Arts advising office for information:

<http://theatre.asu.edu/students/current/undergrad-minors.php>.

Tourism Development & Management Minor PPTDMMIN

PUBLIC PROGRAMS, COLLEGE OF

School of Community Resources and Development

Contact: http://scrd.asu.edu/minor_tourism.html

Description: The minor in Tourism Development & 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 (WTO) and the World Travel Tourism Council (WTTC), 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 & Management, a student may also complete a certificate in Convention Sales and Meeting Planning. For more information, access the school's Web site at <http://scrd.asu.edu/portal/ia/certificate-programs-1/>.

Students may also choose to complete a study abroad program. For more information, access the school's Web site at <http://scrd.asu.edu/portal/ia/study-abroad-programs/>.

Program Requirement: Completion of a Tourism Minor in the School of Community Resources and Development requires following:

1. TDM 205, TDM 325, TDM 415,
2. 15 hours of graded classroom course work (no internship, no independent study),
3. 9 hours of course work at the upper division level, from the approved list,
4. C minimum grade required for all classes in the minor,
5. 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,
2. A major, or pre-major, other than Tourism Development and Management,
3. Must be a junior to take 400-level courses.

Course Selection: (approved list)

Required courses:

TDM 205 Introduction to Travel and Tourism G (3)

TDM 325 Tourism Accommodations (Prerequisites: must have completed REC305 or TDM205 with a grade of C or higher or be currently enrolled) (3)

TDM 415 Tourism Transportation Systems (Prerequisites: Must have earned grade of C 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 (Prerequisites: must have completed REC 305 or TDM 205 with a grade of C or higher or be currently enrolled) (3)

TDM 350 Tourism Marketing (Prerequisites: TDM 205 (or REC 305) with a grade of C or higher or be currently enrolled; must have completed at least 45 hours) (3)

TDM 386 Convention and Sales Management (3)

TDM 448 Heritage and Cultural Tourism (Prerequisites: Must have completed PRM 120 or REC 120 with a grade of C or higher or be currently enrolled) (3)

TDM 458 International Tourism (3)

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

TDM 494 Special Topics*

PRM 475 Entrepreneurial Recreation and Tourism (Prerequisites: Must have earned grade of C or higher in PRM 120 or REC 120 or be currently enrolled) (3)

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

PRM 486 Special Event Management (3)

* This course requires CRD advisor approval. Contact the school's advisor at scrd@asu.edu or call 602/496-0550

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. Students pursuing a Bachelor of Science in Tourism Development and Management are not eligible to complete this minor.

Tourism Management Minor HSTOUMIN

Public Programs, College of

School of Community Resources and Development

Contact: http://chs.asu.edu/programs/rec_tour_mgmt/minor/prog_reqs_tour.shtml

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

Description: The minor in Tourism Management is designed to provide students with fundamental knowledge in travel and tourism management. The minor may be useful to students pursuing degrees in Communication Studies, Criminal Justice and Criminology, Global Business, Interdisciplinary Arts and Performance, and Spanish.

Program Requirement:

The minor consists of 18 semester hours, of which 15 semester hours must be at the upper-division level. To earn the minor, students must complete all courses with a minimum grade of C (2.00). Recreation and Tourism Management majors are not eligible to earn the minor in Tourism Management.

Required Core Courses

Choose two from the following (6)

- RTM 373 Leisure Travel and Tourism SB (3)
- RTM 458 International Tourism G (3)
- RTM 475 Entrepreneurial Recreation and Tourism (3)

Electives

Choose four courses from the following* (12)

- RTM 303 Programming Recreation and Tourism Services (3)
- RTM 304 Recreation and Tourism Areas and Facilities Management L (3)
- RTM 360 Policy, Planning, Development of Recreation and Tourism Resources (3)
- RTM 401 Administration of Recreation and Tourism Services (3)
- RTM 404 Marketing Recreation and Tourism (3)
- RTM 458 International Tourism G** (3)
- RTM 475 Entrepreneurial Recreation and Tourism** (3)
- RTM 486 Special Events Management (3)
- RTM 494 Sustainable Tourism Management (3)

Program total 18

* Select courses in consultation with the minor advisor (an other approved course may be lower-division).

** Course may be taken as an elective if not selected to fulfill core requirement.

Enrollment Requirements: Please contact the department for more information:

http://chs.asu.edu/program_minors/rec_tour_mgmt/prog_reqs_tour.php.

Transborder Chicana/o and Latina/o Studies Minor LACCSMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Department of Transborder Chicana/o and Latina/o Studies

Contact: <http://www.asu.edu/clas/chicana/>

Description: The Department of 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. 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 Requirement:

The TCLS minor requires 18 semester hours of TCLS 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)

Total 6

It is recommended that students taking TCL 201 take TCL 332 and those taking TCL 202 take TCL 331. Students must take the remaining 12 semester hours in upper-division TCLS courses in concentrations of their choice.

Enrollment Requirements: Please contact the department for more information: <http://www.asu.edu/clas/transborder/majors.htm>.

Urban and Metropolitan Studies Minor ARPUPMIN

PUBLIC PROGRAMS, COLLEGE OF

School of Public Affairs

Contact: <http://spa.asu.edu/urban/minor.htm>

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 Requirement: Fifteen hours of course work with a C or better in each course. Nine hours of upper-division coursework from the approved list and 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 -or- URB 300 Urban and Metropolitan Studies (3)
URB 105 Introduction to Urban Governance -or- URB 305 Urban Governance (3)

Total: 6

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)

Total: 6

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.

Total Minor Courses: 18

Enrollment Requirements: Please contact the department for more information: <http://spa.asu.edu/urban/minor.htm>.

Urban Planning Minor ARPPUPMIN

DESIGN, COLLEGE OF

School of Planning

Contact: <http://design.asu.edu/planning>

Description: The BSP degree prepares students for careers in 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 Requirement: A minimum of 18 semester hours are required for the minor, 12 semester hours must be from 300- or 400- level courses.

Required Course:

PUP 301 Introduction to Urban Plannin

Select remaining 15 semester hours (nine semester hours must be from 300- or 400- level courses) 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. Students must, however, 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: 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: <http://design.asu.edu/sala/salaminors.shtml>.

Wellness Foundations Minor ECWFNDMIN

MANAGEMENT AND AGRIBUSINESS, MORRISON SCHOOL OF

Department of Exercise and Wellness

Contact: <http://www.poly.asu.edu/saas/wellness/degree/undergraduate/minor/>

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 Requirement: The minor in Wellness Foundations consists of 18 semester hours. The minor requires that students complete the following courses with a grade of C (2.00) 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 semester hours must be selected from the approved list of electives available in the Department of Exercise and Wellness.

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: <http://www.poly.asu.edu/ecollege/wellness/degree/undergraduate/minor/>.

Women and Gender Studies Minor LAWSTMIN

LIBERAL ARTS AND SCIENCES, COLLEGE OF

Women and Gender Studies Program

Contact: <http://wgs.asu.edu/index.html>

Description: 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 Requirement: The Women and Gender Studies minor consists of 18 semester hours, 12 of which must be in the upper division.

The following courses are required:

WST 100 Women and Society SB, C (3) or WST 300 Women in Contemporary Society SB, C (3)
WST 377 History of American Feminist Thought C (3) or WST 378 Global Feminist Theory L, C (3)

Total 6

Twelve additional 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 academic advisor early in their course of studies.

Enrollment Requirements: Please contact the department for more information: <http://wgs.asu.edu/index.html>.

Women's Studies Minor ASWSTMIN

INTERDISCIPLINARY ARTS & SCIENCES, NEW COLLEGE OF

Division of Humanities, Arts, & Cultural Studies

Contact: http://newcollege.asu.edu/programs/womens_studies/minor_cert/

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 Requirement: The Women's Studies minor consists of 18 semester hours of course work. Students are required to choose three courses (nine semester hours) from the following core: WST 100 or WST 300; WST 350, WST 376, WST 457, or WST 498. Additionally, students are required to select one course in three of the following four areas: global studies, representation and culture studies, gender studies and applied women's studies.

Core Requirements (nine hours)

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

Additional Requirements (nine hours)

Select a total of nine semester hours from any of the courses listed below:

Global Studies 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)
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: Please contact the department for more information:
http://newcollege.asu.edu/programs/womens_studies/minor_cert/.

Youth Services Leadership Minor HSYSLMIN

Public Programs, College of
School of Community Resources and Development
Contact: http://chs.asu.edu/depts_schools/recreation/

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

Description: The minor in Youth Services Leadership is designed to explore the area of youth leadership from the perspective of those who work face-to-face with youth in a variety of settings.

Program Requirement: The minor consists of 12 semester hours of core courses and six hours of electives. To earn the minor, students must complete all course work in the minor with a minimum cumulative GPA of 2.00 or higher and all courses with a minimum grade of C (2.00) or higher.

Required Core Courses

RTM 301 Leadership in Recreation and Tourism (3)
RTM 303 Programming Recreation and Tourism Services (3)
RTM 394 ST: Recreation and Leisure Services for Youth Development (3)
RTM 454 Human Services for At-Risk Youth (3)

Electives

Choose two courses from the following, in consultation with an RTM faculty advisor* (6)

CRJ 340 Juvenile Justice (3)
CRJ 441 Prevention of Crime and Delinquent Behavior (3)
CRJ 462 Gangs (3)
IAP 331 Performance, Acting, and the Individual (3)
IAP 347 Movement in Education (3)
PGS 341 Developmental Psychology (3)

PGS 443 Abnormal Psychology (3)
RTM 302 Recreation and Tourism for Diverse Populations C (3)
RTM 345 Team Building Strategies (3)
RTM 451 Grant Writing for Human Service Professionals (3)
RTM 484 Senior Internship (3)
RTM 494 ST: Leadership and Professional Development in Youth Services (3)
SOC 340 Sociology of Deviant Behavior SB (3)
SPE 222 Orientation to Education in Exceptional Children SB (3)
SPE 322 Behavior Management and Consultation** (3)

Program total 18

* Courses may have prerequisites. See catalog course description.

** This course requires instructor approval.

Enrollment Requirements: Please contact the department for more information:
http://chs.asu.edu/program_minors/rec_tour_mgmt/prog_reqs_youth.php.

Undergraduate Certificates (Program Descriptions and Requirements)

African and African American Studies Certificate LAAFRCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

African and African American Studies Program

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 Requirement: The certificate requires 24 semester hours. Fifteen core hours must be taken from the following courses:

AFH 353 African American Literature: Beginnings Through the Harlem Renaissance L/HU, C (3) or

AFH 354 African American Literature: Harlem Renaissance to the Present L/HU, C (3)

AFR 210 Introduction to African American Studies C (3)

AFR 429 African American Studies Theory and Methods (3)

AFS 363 African American History to 1865 SB, C, H (3)

AFS 364 African American History Since 1865 SB, C, H (3)

In addition, one course from each of the three concentrations (i.e., social and behavioral sciences, humanities/arts, politics and society) must be taken. These courses are in addition to the required core courses. Courses should be selected in consultation with the major advisor.

Enrollment Requirements: Please contact the department for more information: <http://www.asu.edu/clas/afamstu/>.

Arabic Studies Certificate LAARBCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

School of International Cultures and Letters

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 Requirement: 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 to earn the Arabic Studies Certificate. These hours can be chosen in consultation with the Certificate coordinator. A minimum grade of C or higher is required in each course.

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

Certificate Program. The application will consist of name, address, phone number, e-mail address, student ID number, major, year in college, anticipated graduation date, and the name of their major academic advisor. Please contact the department for more information: <http://www.asu.edu/clas/silc/arb/>.

Asian Pacific American Studies Certificate LAAPACERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Asian Pacific American Studies Program

Description: Asian Pacific American Studies is an interdisciplinary undergraduate program 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 program is designed to help students of all ethnicities:

1. to think critically, develop clear written arguments, and present their perspectives effectively,
2. to learn about Asian American and Pacific Islander experiences and communities in Arizona, nationally, and within a larger global context, and
3. 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 program also encourages students to learn about local Asian American and Pacific Islander communities and organizations through research, courses, and community internships.

Program Requirement:

Course Requirements

The certificate program requires 18 semester 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 450 Asian Pacific American Contemporary Issues SB, C (3)

APA 484 Internship (3)

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

The remaining six semester hours must be filled by courses from an approved list, including any additional courses with an APA prefix, as well as COM 263 and MCO 460. Students must apply for the certificate program through the Asian Pacific American Studies Program office.

Enrollment Requirements: Please contact the department for more information:

http://www.asu.edu/clas/asian/certificate_undergrad.html.

Asian Studies Certificate LAASNCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Center for Asian Research

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 Requirement: The certificate curriculum includes 24 semester hours of course work:

1. 15 semester 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), and

2. nine additional semester hours may be some combination of lower- and/or upper-division courses. Six hours may be satisfied with language and literature courses limited to 321 and above.

In addition, certificate students must demonstrate proficiency in an Asian language at the intermediate level. The language requirement can be satisfied by completing the 201 and 202 sequence, one year of study abroad at the intermediate level, or satisfactory placement on a proficiency exam. Asian languages include Chinese, Hindu/Urdu, Indonesian, Japanese, Korean, Thai, and Vietnamese. Students pursuing an Asian Studies Certificate may apply courses in East, South and/or Southeast Asia to meet the certificate requirements.

Enrollment Requirements: There are no specific admission requirements other than a student's desire to learn about Asia. A minimum grade of C 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_undergrad.html.

Automotive Entrepreneurs and Leaders Certificate BADMGCERT

W. P. CAREY SCHOOL OF BUSINESS

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 hiring and managing personnel; coordinating teams; understanding consumers and human behavior; managing financing and cash flow; handling vehicle inventory; managing customer service operations; and managing automobile marketing efforts.

Program Requirement: Students must complete a bachelor's degree from the W. P. Carey School of Business and complete a minimum of 15 semester hours of approved course work, including the following six hours:

MGT 494 ST: Dealership Management (3)
WPC 494 Special Topics (3)

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

Enrollment Requirements: To assure students a quality experience, 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: <http://wpcarey.asu.edu/up/current-students/academics/certificates/cael/index.cfm>.

Child Nutrition Certificate ECNTRCERC

SCHOOL OF APPLIED ARTS AND SCIENCES

Nutrition

Contact: <http://www.poly.asu.edu/saas/nutrition/> | nutrition@asu.edu | Health Science Center 1386 | 480-727-1728

Description:

This certificate program is directed toward current degree-seeking students, postbaccalaureate students, and nondegree-seeking students who are seeking eligibility for the SNS credential. 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 at ASU. The Curriculum Committee of the Department of Nutrition at ASU will approve applications to the certificate program.

Program Requirement: The certificate requires that students take the following courses:

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)

Total semester credits: 31

Enrollment Requirements:

This certificate is directed toward students who are seeking eligibility for certification as a school nutrition specialist (SNS), a recognized credential offered by the School Nutrition Association (SNA). The certificate will provide students with documentation that they have completed a limited curriculum and achieved a standardized level of competence in course work related to child nutrition programs. Upon completion of the certificate in child nutrition, students are eligible to sit for the national SNS examination.

Civic Education Certificate LACVECERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of Political Science

Description: The Civic Education Certificate is designed to contribute to the preparation of undergraduate students for:

1. careers in primary and secondary education (where the teaching of government and civics may be involved),
2. careers or voluntary participation in politics, public service, and civic and social movements, and
3. 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 Requirement: 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 semester 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 (3):

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 (3):

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)

Total: 15

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: Please contact the department for more information:
<http://www.asu.edu/clas/polisci/undergraduate/civic-certificate.html>.

Classical Studies Certificate LACLCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES
School of International Cultures and Letters

Description: The Classical Studies program at ASU 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 Requirement: 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 semester hours; GRK 301 and 302 may be repeated for credit) or Latin (19 semester hours) language and literature instruction,
2. two semesters (six semester hours), in courses related to classical studies (to be approved by coordinators of the certificate); a thesis (three semester hours), a Barrett, the Honors College thesis (six semester hours) or two additional courses at or above the 300 level (six semester hours), and
3. a minimum grade of C (2.00) in each course leading to the certificate.

Enrollment Requirements: Students interested in the Classical Studies certificate program need to submit an application before being accepted into the program. Please contact the department for more information:
<http://www.asu.edu/clas/silc/classics/undergraduate/certificates/>.

Computer Gaming Certificate ESSCIGERT

IRA A. FULTON SCHOOL OF ENGINEERING

Contact: <http://sci.asu.edu> | sci.advising@asu.edu | BYENG 553 | 480-965-3190

Description: The computer gaming certificate is designed to provide a comprehensive game development skill set that the student can apply to their major. The goal is not to teach the student to create recreational video games, but to apply gaming technology to domain-specific problems.

The gaming certificate teaches skills that not only make the student attractive to the rapidly-growing video game industry, but also to a variety of other enterprises, including:

- Business
- Medicine

- Geography
- Education
- Biotechnology

Program Requirement: Students completing the computer gaming certificate will take a total of 18 credit hours including:

1. Six credit hours of core courses.
2. Nine credit hours in one of three specialty tracks.
3. A three-credit-hour capstone project.

The tracks include game programming, game art and gaming in education.

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. Interested students should make an appointment with the School of Computing and Informatics advising office to determine initial eligibility. After approval from that advisor, the student must get permission from their home department. Once obtained, the School of Computing and Informatics advisor will officially admit the student by attaching the certificate designation to their record.

Convention Sales and Meeting Planning Certificate PPTDMCERT

COLLEGE OF PUBLIC PROGRAMS

School of Community Resources and Development

Description: The U.S. meetings, conventions and exhibitions industry generates over \$120 billion a year, supporting nearly two million jobs. Come 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. Come learn in this vibrant urban environment. 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 Requirement:

1. A student must successfully pass all courses within the certificate by attaining at least a grade of C or Y in all courses within the certificate;
2. All five of the required courses must be taken at ASU;
3. 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 & Development.

Required Course Work (15 credit hours):

TDM 205 Introduction to Travel and Tourism G (3)

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

TDM 350 Tourism Marketing (Prerequisites: must have completed REC 305 or TDM 205 with a grade of C or higher or be currently enrolled; must have completed 45 hours) (3)

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: <http://socrd.asu.edu/portal/ia/certificate-programs-1/convention-sales-meeting-planning-certificate/>.

To apply, please contact the School's Academic Advisor for an application form:

Academic Advisor
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
Email: scrd@asu.edu

Creative City Certificate PPURBCERC

COLLEGE OF PUBLIC PROGRAMS

School of Public Affairs

Contact: http://spa.asu.edu/new/undergrad/creative_city.htm | spa@asu.edu | UCENT 400 | 602-496-0450

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 & 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 Requirement: 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 hours):

URB 494 Urbanism: Placemaking and Community Building (3 hours)
URB 494 Public Administration and Community Development (3 hours)

Sample certificate electives (9 hours):

URB 410 Urban Leadership and Collaborative Skills (3 hours)
GRA 401 Creating Environments (3 hours) [This course develops individual creativity to apply in collaborative settings to urban and environmental issues.]
URB 494 Internship (3 hours)

Total certificate: 15 hours

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) [CRD 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 non-degree) at ASU. Non-degree students are required to apply to ASU (as a non-degree 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. For more information, please visit http://spa.asu.edu/new/undergrad/creative_city.htm.

Dietetics Certificate ECNTRCERD

SCHOOL OF APPLIED ARTS AND SCIENCES

Nutrition

Contact: <http://www.poly.asu.edu/saas/nutrition/> | nutrition@asu.edu | Health Science Center 1386 | 480-727-1728

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 in Dietetics will enable students to receive a verification statement from the Commission on Accreditation for Dietetics Education's (CADE) Didactic Program in Dietetics (DPD).

Program Requirement: Required Course work

BCH 361 and 367 or equivalent - Biochemistry with lab
 BIO 201 or equivalent - Human Anatomy / Physiology I with lab
 BIO 202 or equivalent - Human Anatomy / Physiology II with lab
 CHM 113 or equivalent - General Chemistry I with lab
 CHM 116 or equivalent - General Chemistry II with lab
 CHM 231 and 235 or equivalent - Organic Chemistry with lab
 MIC 205 and 206 or equivalent - Microbiology with lab
 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 or equivalent - Intro Psychology
SOC 101 or equivalent - Intro Sociology
Statistics
Technical or Professional Writing (ENG 301 or equivalent)

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 at ASU. The applicant must have already completed a bachelor's degree not specific to dietetics. The Curriculum Committee of the Department of Nutrition at ASU will approve applications to the certification program. The DPD 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.

East Asian Studies Certificate LAEASC

COLLEGE OF LIBERAL ARTS AND SCIENCES
Center for Asian Research

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, MBA programs, or PhD programs. An earned certificate will appear on student transcripts as an East Asian Studies emphasis.

Program Requirement: The certificate curriculum includes 24 semester hours of course work:

1. 15 semester 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); and
2. nine additional semester hours may be some combination of lower- and/or upper-division courses. Six hours may be satisfied with language and literature courses limited to 321 and above.

In addition, certificate students must demonstrate proficiency in an Asian language at the intermediate level. The language requirement can be satisfied by completing the 201 and 202 sequence, one year of study abroad at the intermediate level, or satisfactory placement on a proficiency exam. Asian languages include Chinese, Hindu/Urdu, Indonesian, Japanese, Korean, Thai, and Vietnamese. Students pursuing an East Asian 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.

Enrollment Requirements: There are no specific admission requirements other than a student's desire to learn about East Asia. A minimum grade of C 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_undergrad.html.

Entertainment and Technology LAFMSUERE

COLLEGE OF LIBERAL ARTS AND SCIENCES
Film and Media Studies

Contact: <http://film.asu.edu> | fmsinfo@asu.edu | LL 641 | 480/965-6747

Description: The Entertainment and Technology Certificate is a declaration from ASU that a student has 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 Requirement: ASU students admitted to a degree program in any field of study are eligible for the Entertainment and Technology Certificate Program. 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 or better is required in each course.

Required certificate core courses (18 credit hours):

FMS 100 Introduction to Film
FMS 110 New Media, New Worlds
FMS 200 Film History
FMS 481 Entertainment Technologies
FMS 482 Entertainment Industries
FMS 483 Techno-Entertainment Convergences

Enrollment Requirements: Please contact the department for more information: <http://film.asu.edu/entertech>.

Ethics Certificate LAETHCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of Philosophy

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, 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 Requirement: The Certificate in Ethics consists of 18 semester hours approved by the undergraduate advisor in the Department of Philosophy. The student must take PHI 305 or 335. At least 15 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 department, 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: Please contact the department for more information:
http://www.asu.edu/clas/philosophy/ethics_certificate.htm#ethics.

Ethnic Studies Certificate ASETHCERT

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES

Division of Humanities, Arts, & Cultural Studies

Description: The minor and certificate programs in Ethnic Studies explore 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.

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. Courses in the Ethnic Studies minor and 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 in course content, and

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

This minor and certificate are 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 minor and certificate programs will be able to think both analytically and creatively about ethnicity in the United States. The minor or certificate is strongly recommended for students who plan to enter a wide variety of jobs in business, the health professions, the criminal justice system, social services, education, public relations, community development, public policy, or government. It is also valuable for students preparing for further graduate study.

Program Requirement: A certificate in Ethnic Studies is awarded for successful completion of 21 semester hours, including ETH 300 and 18 semester hours of elective courses from the approved course list. The certificate program is recommended for graduate students, nondegree 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 or higher.

Enrollment Requirements: Please contact the department for more information:
http://newcollege.asu.edu/programs/erfns/minor_cert/certificate.shtml.

Film and Video Studies Certificate ASVIDCERT

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES

Department of Interdisciplinary Arts and Performance

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, as well as degrees in production, film studies, media studies, performance studies, and communication studies. Courses in the Certificate in Film and Video Studies are designed to:

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

Program Requirement: A certificate of concentration in Film and Video Studies is awarded for the successful completion of the 21 semester hours required for the minor.

Enrollment Requirements: Please contact the department for more information: http://newcollege.asu.edu/depts_schools/iap/.

Fire Service Management Certificate TSIMCFCERT

COLLEGE OF TECHNOLOGY AND INNOVATION

Department of Technology Management

Description: The Fire Service Management Online Certificate program prepares students for leadership and management positions in fire departments, fire brigades in private industrial firms, and fire safety divisions in private and nonprofit sectors. Students learn about the concepts and principles of fire service management and fire prevention. Emphasis is placed on the application of these concepts and principles to complex problems, encountered in contemporary organizations, which commonly face fire chiefs, and fire safety managers. Students learn the roles required to design, implement, and evaluate effective fire

service management and prevention programs. Students also learn how to lead, change, and manage fiscal responsibilities in a way that maximizes resources to provide the most effective and efficient services possible.

Program Requirement: The Fire Service Management Online Certificate program is a logical first academic step toward an Associate or Bachelor's Degree. Students earn 18 semester hours of upper division academic credit that can be transferred to an Associate or a Bachelor's degree program. Students who complete the certificate program can apply it towards the Bachelor of Applied Science Degree in Fire Service Management at ASU or used to satisfy either required or elective course requirements in other degree programs. These credits can also be transferred to other degree programs at other institutions. This is especially attractive to working firefighters in other parts of the nation or who live in other countries. Ultimately, students will be able to apply their experience to a Master of Science in Technology in Fire Service Administration.

Enrollment Requirements: Please contact the department for more information:
<http://poly.asu.edu/technology/imt/fire/certificate/>.

Geographic Information Science Certificate LAGISCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

School of Geographical Sciences

Description: The Geographical Information Science (GIS) Certificate Program is a structured interdisciplinary program offered through the Graduate College. 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 Requirement: The certificate is awarded to students completing the following 19 semester hours with a grade of C (2.00) or higher.

Required Courses

CSE 100 Principles of Programming with C++ 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)

Elective (choose from the courses below) (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: Please contact the department for more information:
http://geography.asu.edu/education/degrees/ug_gis_cert.php.

Hazardous Materials and Waste Management Certificate TSETMCERT

COLLEGE OF TECHNOLOGY AND INNOVATION

Department of Technology Management

Description: The Certificate Program in Hazardous Materials and Waste Management is designed to provide current and prospective employees of industry and government with a comprehensive and practical curriculum of study in hazardous materials management. The certificate program features instruction by 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 BS degree in Environmental Technology Management with a Certificate in Hazardous Materials and Waste Management, and a Master of Science in Technology degree with a Certificate in Hazardous Materials and Waste Management.

Program Requirement: 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.

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

History and Culture ECHTYCERT

SCHOOL OF APPLIED ARTS AND SCIENCES

Humanities and Arts

Contact: <http://www.poly.asu.edu/saas/humanitiesarts/historyculture.html> | 233 Santa Catalina Hall | 480-727-1526

Description: History and Culture at Arizona State University 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 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 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 Requirement:

Certificate (15-18 hours)

- nine semester hours of focus-area courses in their chosen track,
- six to nine semester hours of electives.

Enrollment Requirements: See advisors in the School of Applied Arts and Sciences for admission to the certificate program.

History and Philosophy of Science Certificate LAHPSCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

School of Life Sciences

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 Requirement: The certificate requires 18 semester hours bearing a PHI or HPS prefix of which 12 semester hours must be upper-division. Within the 18 semester hours, at least nine must bear the HPS prefix. PHI 314 Philosophy of Science is

required. All courses counting toward the certificate must be approved by an undergraduate advisor in the School of Life Sciences and passed with a grade of C (2.00) or higher.

Enrollment Requirements: Please contact the department for more information: <http://sols.asu.edu/cbs/programs.php>.

Honors Business Modeling and Analysis BAECNCERT

W. P. CAREY SCHOOL OF BUSINESS

Contact: <http://wpcarey.asu.edu/up/current-students/academics/certificates/honors-certificate.cfm> | wpcareyug@asu.edu | BA 109 | 480-965-4227

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 Requirement: The program consists of at least 24 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) 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.

A. Statistics (3 hrs)

ECN 231 Honors Business Statistics

ECN 221 Business Statistics with a grade of A- or higher

STP 226 Elements of Statistics with a grade of A- or higher

B. Economic Theory (3 hrs)

ECN 214 Honors Microeconomics

ECN 212 Microeconomics Principles with a grade of A- or higher

ECN 314 Intermediate Microeconomics

C. Accounting (3 hrs)

ACC 261 (ACC 303) Honors Fundamentals of Financial Accounting

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

ACC 315 Financial Accounting and Reporting

D. Honors Business Core (6 hrs)

Completion of at least 6 semester 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

E. Business Modeling and Analysis (3 hrs)

SCM 415 (SCM 494) Business Decision Models

F. Honors Directed Study and Creative Project (6 hrs)

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: <http://wpcarey.asu.edu/up/current-students/academics/certificates/honors-certificate.cfm>

Informatics ESCIPCERT

IRA A. FULTON SCHOOL OF ENGINEERING

Computing and Informatics

Contact: http://sci.asu.edu/undergraduate/informatics_cert.php | sci.advising@asu.edu | 480-965-3199

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 is available to students in non-computing majors and will provide them with an understanding of the capabilities and technologies of Informatics as it applies to domain specific problems in their field of study. 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. The applied and user-oriented focus of the degree will make these graduates attractive to such employers.

Program Requirement: This program requires 21 total hours of course work. Students will take 15 hours of required courses and will choose six hours of elective course work.

Enrollment Requirements: Must be an ASU student in good standing.

International Business Certificate BAIBSCERT

W. P. CAREY SCHOOL OF BUSINESS

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; to provide an awareness of global social processes; to develop sensitivity to foreign cultures; and to 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 has partnerships with universities in Europe, Asia and Latin America so you experience new cultures, visit new places and build intercultural and language skills. Overseas internships also are offered in conjunction with the international programs office at ASU.

Program Requirement: At least nine semester 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 2.5 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 Cultural Factors in International Business* C, G (3)
- MGT 459 International Management* G (3)
- MKT 360 Seminar in International Business (3)
- MKT 394 ST: Global Markets (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 semester hours in school general education degree requirements.

Enrollment Requirements: Please contact the department for more information: <http://wpcarey.asu.edu/up/current-students/academics/certificates/international.cfm>.

International Studies Certificate LAINSCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of Political Science

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 Requirement: 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 semester 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 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)

Total 15 semester hours

Enrollment Requirements: Please contact the department for more information:
<http://www.asu.edu/clas/polisci/undergraduate/intl-certificate.html>.

Islamic Studies Certificate LAISLCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of Religious Studies

Description: Students admitted to undergraduate degree programs in any field are eligible for the Islamic Studies Certificate program. Students who complete all the requirements of their 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 societies.

Program Requirement: Students must complete a minimum total of 26 semester hours, chosen in consultation with the Islamic Studies program coordinator. A minimum grade of C (2.00) is required in each course. To earn the certificate, students must complete these requirements:

1. eight semester 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 semester hours from REL 260 Introduction to Islam, REL 365 Islamic Civilization, and REL 366 Islam in the Modern World,
3. three semester hours taken from REL 394 (topics may vary) or REL 460 Studies in Islamic Religion (topics may vary), and
4. six semester hours drawn from an approved list of courses in Arabic, anthropology, French, geography, history, religious studies, Spanish or from other courses approved by the program coordinator.

Enrollment Requirements: Please contact the department for more information:
http://www.asu.edu/clas/religious_studies/isc.html.

Jewish Studies Certificate LAJUDCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of Religious Studies

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

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

Program Requirement: To complete the Certificate in Jewish Studies, a student must successfully complete seven approved courses in Jewish Studies with a grade no lower than a C 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; one course in three of the following five areas: Religious Studies, History, Humanities, Social Studies, or Literature; and two courses of the student's choice in any Jewish Studies related subject,
3. 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:
<http://www.asu.edu/clas/jewishstudies/certificateinfo.htm>.

Latin American Studies Certificate LALASCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

School of International Letters and Cultures

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 Schools of Human Evolution and Social Change and International Letters and Cultures (Spanish and Portuguese); and Transborder Chicana/o and Latina/o Studies offer courses that combine to make up the interdisciplinary certificate.

Program Requirement: Students must complete 30 semester hours of upper-division courses from the above departments/colleges with a concentration in Latin America-15 semester hours in the major subject and 15 semester 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.

Enrollment Requirements: For more information, contact Cynthia Tompkins at the School of International Letters and Cultures via e-mail at cynthia.tompkins@asu.edu or by phone at 480/965-6446. Please see the school's Web page for more information: <http://www.asu.edu/clas/latin/undergradcertificate.htm>.

Leadership and Ethics Certificate PPLDECERT

COLLEGE OF PUBLIC PROGRAMS

School of Public Affairs

Description: The School of Public Affairs, in conjunction with the Lincoln Center for Applied Ethics, offers a 15-semester-hour Leadership and Ethics Certificate program. The certificate prepares students for positions of leadership and responsibility in the university, in their communities, and throughout their careers in business, government, and society. Students 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. The program provides students with an understanding of change processes as they affect individuals, groups, and organizations throughout society, so that students might better learn to cope with and direct change in positive and beneficial ways.

Program Requirement:

D PAF 494 ST: Building Leadership Skills (3)

D PAF 494 ST: Leadership and Change (3)

D PAF 494 ST: Leadership Capstone (3)

D PHI 394 ST: Ethics and Justice (3)

Elective (3)

Total 15

Enrollment Requirements: Students interested in earning the certificate must make formal application to the School of Public Affairs office. This certificate is available to all admitted undergraduate, regular or nondegree students who have completed 45 semester hours of credit and who have a cumulative GPA of 2.67 or higher. Students may begin taking courses before they formally register for the certificate; however, they should apply for admission as soon as possible.

Please contact the department for more information: <http://spa.asu.edu/programs/Leadership&Ethics.htm>.

Lesbian, Gay, Bisexual, and Transgender Certificate PPLGBTCERT

COLLEGE OF PUBLIC PROGRAMS

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.

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

The goals of the certificate program are to give students knowledge about specific lesbian, gay, bisexual, and transgendered communities; knowledge about the history and maintenance of the category, lesbians and gay men; theoretical perspectives on heterosexuality as a presumptive sexual identity; an understanding of Lesbian, Gay, Bisexual, and Transgender Studies as an academic area of inquiry; an understanding of community politics, dynamics, and conflicts; use-inspired education that culminates in a public presentation; and practical experience in utilizing course work knowledge in the community through an internship or community service project.

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

Enrollment Requirements: Please contact the department for more information: <http://www.asu.edu/copp/bis/>.

Literature, Writing, and Film ECLWFCERT

SCHOOL OF APPLIED ARTS AND SCIENCES

Humanities and Arts

Contact: <http://www.poly.asu.edu/saas/humanitiesarts/litfilm.html> | 233 Santa Catalina Hall | 480-727-1526

Description: Literature, Writing, and Film at Arizona State University 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 in Literature, Writing, and Film 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 Requirement:

Certificate (15-18 hours)

- nine semester hours of focus-area courses in their chosen track,
- six to nine semester hours of electives.

Enrollment Requirements: See advisors in the School of Applied Arts and Sciences for admission to the certificate program.

Medieval and Renaissance Studies Certificate LAMRSCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

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, ACMRS has established a certificate program for undergraduate students in Medieval and Renaissance studies. The program provides students the opportunity to take classes from several disciplines, and to receive training in both Latin, the international language of the periods, and paleography, the study of the physical medium through which Latin and other languages were transmitted. Obtaining the certificate prepares undergraduate students for advanced study, and it augments the skills and knowledge necessary for graduates to succeed in academic positions in their field.

Program Requirement: 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 to eight semester hours of classical Latin and six to eight semester 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 to eight semester hours of course work in medieval and renaissance studies outside the major discipline,
3. three semester hours of thesis on a topic concerning the Middle Ages or Renaissance. The thesis may be used to fulfill the honors college thesis requirement for students enrolled in the Barrett, the Honors College, and
4. a minimum of a C (2.00) average in all course work leading to the certificate.

Enrollment Requirements: Please contact the department for more information:

http://www.asu.edu/clas/acmrs/web_pages/academic_programs/ac_pro_certificates.html.

Multimedia Writing and Technical Communication ECTWCCERT

SCHOOL OF APPLIED ARTS AND SCIENCES

Description: Through the Multimedia Writing and Technical Communication Program, students learn how to produce, design, and manage information, using both traditional and developing technologies.

Program Requirement:

TWC 501 Principles of Technical Communication (3)

Two of the following courses (6)

TWC 511 Principles of Visual Communication (3)

TWC 521 Principles of Writing with Technology (3)

TWC 531 Principles of Technical Editing (3)

Three 500-level TWC courses at least two of which must be genre courses, such as TWC 543 Proposal Writing or TWC 547 Business Reports (9)

Total 18

Enrollment Requirements: Please contact the department for more information: <http://techcomm.asu.edu/degrees.shtml>.

Nonprofit Leadership and Management: American Humanities Certificate PPNPYCERT

COLLEGE OF PUBLIC PROGRAMS

School of Community Resources and Development

Description: The certificate program in Nonprofit Leadership and Management: American Humanities 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 & Girls Clubs, Boy Scouts of America, Camp Adventure, Camp Fire USA, Corporation for National and Community Service, Girls Inc., Girl Scouts of the USA, GuideStar, The Humane Society of the United States, Junior Achievement, March of Dimes, National 4-H Council, National Urban League, Opportunity Knocks.org, Points of Light Foundation, United Way of America, Volunteers of America, and YMCA of the USA.

Program Requirement: 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 baccalaureate 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* (4)
- NLM 420 American Humanics Institute (2)
- NLM 430 Managing Nonprofit Organizations (3)
- NLM 463 Senior internship (12)

Minimum total 30

* NLM 320 is taken four semesters, for one semester hour each term.

Enrollment Requirements: Applications are accepted throughout the year. Please see the department Web page for more information: <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

Philosophy, Politics, and Law Certificate HOPPLCERT

BARRETT, THE HONORS COLLEGE

Description: Students enrolled in Barrett may pursue the Certificate in Philosophy, Politics, and Law (PPL). 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 Requirement: The concentration comprises six courses (18 semester 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 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 PPL 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 (PPL) faculty and approval by the PPL Council. Please contact the department for more information: http://honors.asu.edu/w-Philosophy__Politics_and_Law_Certificate_Program-179.aspx.

Public Administration and Public Management Certificate PPPAFCERT

COLLEGE OF PUBLIC PROGRAMS

School of Public Affairs

Description: The School of Public Affairs offers a 15-semester-hour Public Administration and Public Management Certificate program. The certificate prepares students for leadership positions and careers in governmental agencies and nonprofit associations.

Program Requirement:

- D PAF 300 Public Management and Administration (3)
- D PAF 340 Public Management and Policy (3)
- D PAF 420 Public Leadership (3)
- D PAF 460 Public Service Ethics (3)
- Elective (3)

Total 15

Enrollment Requirements: Students interested in earning the certificate must make formal application to the School of Public Affairs office. Students may begin taking courses before they formally register for the certificate; however, they should apply for admission as soon as possible. Applications can be downloaded at spa.asu.edu/pdf/undergradcertificate.pdf.

Please contact the department for more information: http://spa.asu.edu/programs/undergrad_certificate.htm.

Religion and Conflict Certificate LARELCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Description: The certificate is open to students in any major, and 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), 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 credits): courses in this category provide students specific regional knowledge of how religion has been implicated in human conflict. Required coursework in at least 2 different regions fosters a comparative understanding of the dynamics of religion and conflict in historical and global contexts
- Political component (3 credits): 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 credits): 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 credits): any approved/qualifying course may be used as an elective to fulfill remaining requirements toward the total number of credit hours and to meet the interdisciplinary requirement.

Religion and Conflict Course Offerings

The following regularized courses may be taken to complete certificate requirements. Not all courses are offered each semester. However, each semester some special topics courses (usually designated 394, 494 or 498) may be taken to fulfill certificate requirements as approved by the certificate director.

Regional Component (6 credit hours representing two different regions)

Religion and Europe:

HST 350 Later Middle Ages
HST 352 Europe's Reformation
HST 355 Total War and the Crisis of Modernity
HST 361/REL 374 Witchcraft and Heresy in Europe
REL 377 Religion in Russia
REL 471 Reformation and Modern Christianity

Religion and the Middle East:

ARB 331 Arabic and Islamic Culture/Literature
ARB 341/REL 368 Quran Text and Women
GCU 328 Geography: Middle East/North Africa
HST 372 Modern Middle East

Religion and the United States:

HST 315 American Politics
REL 321 Religion in America
REL 327 American Jews in U.S. Politics
SOC 394/REL 386 America and the Holocaust*

Religion in Africa:

GCU 328 Geography: Middle East/North Africa
POS 359 Faith & Politics in Africa*

Religion in Asia:

HST 352 Chinese Cultural History
REL 357 Theravada Buddhism in South and S.E. Asia
REL 377 Religion in Russia

Political Component (3 credit hours)

HST 315 American Politics
HST 355 Total War and the Crisis of Modernity
HST 372 Modern Middle East
POS 359 Faith and Politics in Africa*
POS 364 National Security/International Terrorism*
REL 327 American Jews in U.S. Politics
REL 364 Islam and World Affairs REL 379 Religion, Nationalism and Ethnic Conflict
REL 364 Islam and World Affairs
REL 379 Religion, Nationalism and Ethnic Conflict
REL 380 Theology of Terror: Bin Laden and others
REL 388 Religion, Ethics and International Politics
SGS 324/REL 480 Religion and Global Politics*

Cultural Component (3 credit hours)

ARB 331 Arabic & Islamic Culture/Literature
ARB 341/REL 368 Quran Text and Women

FMS 474/REL 313 Anti-Semitism in Modern Times
HST 352 Europe's Reformations
HST 361/REL 374 Witchcraft and Heresy in Europe
HST 452 Chinese Cultural History
POR 497 Afro-Brazilian Maroon Poetry
REL 201 Religion and the Modern World
REL 321 Religion in America
REL 352 Modern Buddhism
REL 357 Theravada Buddhism: South/S.E. Asia
REL 366 Islam in the Modern World
REL 377 Religion in Russia
REL 381 Religion and Moral Issues
REL 392 Religious Encounters in Post-colonial and Globalized Space
REL 461 Different Voices within Contemporary Islamic Discourse
REL 471 Reformation and Modern Christianity
REL 481 Religion and Bioethics
REL 482 Religion, Violence and Conflict resolution
REL 483 Religion and Science
SOC 394/REL 386 America and the Holocaust*
WST 377 Women and Violence*

Electives (6 hours)

Remaining credit hours may be filled by taking courses listed above or other courses, including special topic courses, as approved by the certificate director.

Examples of special topics courses taught in the last few years include:

POS 394/HEB 394 War and Peace in the Middle East*
REL 394 Religion and the American Presidency
SGS 394 Violence, Conflict, and Human Rights*
WST 498 Women, Religion, and Global Violence*

Interdisciplinary Requirements

Of the 18 total credits taken to fulfill the certificate, at least three credits from the social sciences (SOC, POS, SGS or WST, noted with an "*") and six credits from the humanities (ARB, HST, POR or REL). The interdisciplinary requirement can be met through any course listed above, except GCU 328.

* Denotes social science course.

Enrollment Requirements: Any ASU student may pursue the Religion and Conflict certificate. A minimum grade of "C" (2.00) is required for a course to fulfill a certificate requirement. Please complete the registration form, and e-mail it to the certificate director. Please direct questions about the program to the certificate director.

Russian and East European Studies Certificate LAREECERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Description: Undergraduate students may complete an interdisciplinary certificate program in Russian and East European studies while pursuing a bachelor's degree in their chosen field.

Program Requirement: The requirements for the Russian and East European Studies Certificate comprise (1) three years (22 semester hours) of Russian or another Eurasian or East European language and (2) 30 upper-division semester 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 semester hours must be outside the School of International Letters and Cultures (i.e., non-RUS and non-FLA courses). Fulfillment of these requirements is certified by the Russian and East European Studies Center and is recognized on the transcript by a bachelor's degree with Major in [Discipline], and 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 or East European language and area studies. A student with a major in any department may pursue this certificate.

Enrollment Requirements: Please contact the department for more information:
<http://www.asu.edu/ipo/reesc/certificate/certificate.html>.

Small Business and Entrepreneurship Certificate BASMBCERT

W. P. CAREY SCHOOL OF BUSINESS

Description: Students learn how to launch their own business or work with small or start-up 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 Requirement: This certificate in Small Business and Entrepreneurship is available only to business majors at ASU. The certificate requires 15 semester hours of classes, including the following six semester hours:

MGT 440 Small Business and Entrepreneurship (3)
MGT 445 Business Plan Development (3)

The remaining nine semester 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) or higher.

Enrollment Requirements: Please contact the department for more information: http://wpcarey.asu.edu/up/current-students/academics/certificates/small_business.cfm.

Southeast Asian Studies Certificate LASALCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Center for Asian Research

Description: The Certificate in Southeast Asian Studies can supplement a bachelor's degree, demonstrating knowledge of a Southeast Asian Language as well as 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, MBA programs and PhD programs. An earned certificate will appear on student transcripts as a Southeast Asian Studies Emphasis.

Program Requirement: A Certificate in Southeast Asian Studies is available to any undergraduate student. The certificate program requires a corequisite two-year sequence in a Southeast Asian language (Indonesian, Thai, or Vietnamese) and 18 semester hours, including the courses listed below.

The ASU 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 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>.

Spa Management Certificate ECEXWCERT

SCHOOL OF APPLIED ARTS AND SCIENCES

Department of Exercise and Wellness

Description: The Certificate in Spa Management program 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 Requirement: The Spa Management Certificate program is a nondegree, 34-semester-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. This certificate is recognized by the International Spa Association, and it significantly enhances a graduate's opportunity for placement and advancement within the industry.

Admission to the certificate program is based on a rubric that includes higher education credits, GPA, work experience, résumé, references, and a letter of intent.

Required Courses:

- BUA 381 Small Business Accounting and Finance (3)
- BUA 382 Small Business Sales and Market Development (3)
- BUA 383 Small Business Working Relationships (3)
- EXW 325 Fitness for Life (3)
- EXW 400 Stress Management for Wellness (3)
- EXW 484 Exercise and Wellness Internship (6)
- EXW 498 Pro Seminar: Spa Management I (2)
- HHS 300 Overview of Complementary Health Systems (3)
- NTR 345 Development of Healthy Cuisines (3)
- OMT 494 Organizational Leadership (3)
- WED 165 Overview of Massage Therapy* (2)

Total 34

* This course is offered through Chandler-Gilbert Community College.

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 Certification Program is limited. Each applicant is evaluated based on a rubric that includes:

1. Years of higher education completed and cumulative GPA,
2. Experience in the spa industry or a wellness-related field,
3. Résumé,
4. Three references,
5. Letter of intent

Please contact the department for more information: <http://www.poly.asu.edu/saas/wellness/spa/>.

Special Events Management HSRTMCERT

COLLEGE OF PUBLIC PROGRAMS

School of Community Resources and Development

Contact: http://chs.asu.edu/programs/rec_tour_mgmt/sem/ | COHS@asu.edu | 602/543-6600

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

Description: The Special Events Management Certificate is a career enhancement program offered to non-degree seeking students or those who already have a degree from an accredited university (any major) or students currently pursuing a bachelor's degree (any major).

Program Requirement: The certificate requires a total of 21 semester hours, 15 semester 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 (15 credit hours)

- RTM 486 Special Event Management* (3)
- RTM 303 Programming Recreation and Tourism Services (3)
- OR: RTM 320 Talent and Entertainment Concepts (1)
- RTM 321 Event Protocol, Ethics and Etiquette (1)
- RTM 322 Special Event Programming (1)
- RTM 323 Special Event On-Site Operations (1)
- RTM 324 Festival Site Design (1)
- RTM 325 Working with Subcontractors and Vendors (1)
- RTM 326 Sponsorship (1)
- RTM 327 Creative Event Revenue Production (1)
- RTM 328 Accounting for Special Events(1)
- RTM 388 Business Practices for Special Events Management (3)

Electives (Select six credit hours)

- RTM 373 Leisure, Travel and Tourism (3)
- RTM 345 Meeting and Convention Planning (3)
- RTM 404 Marketing Recreation and Tourism (3)
- RTM 451 Grant Writing for Human Service Professionals (3)
- RTM 453 Volunteer Management in Human Service Organizations (3)
- RTM 475 Entrepreneurial Recreation and Tourism (3)
- RTM 487 Special Events Advanced (3)

*RTM 486 must be taken prior to any other RTM core courses except 303.

Enrollment Requirements: Please contact the department for more information:
http://chs.asu.edu/rec_tour_mgmt/certificate/sem.php.

Symbolic Systems Certificate LAPHICERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of Philosophy

Description: The Department of Philosophy 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 Requirement: The Certificate in Symbolic Systems consists of 28 semester hours approved by an advisor in the Department of Philosophy 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, and
one of either PHI 319, or 333, either PHI 315 or 317, and either PHI 312 or 314.

Students must satisfy the prerequisites for the listed courses. With written approval from the director of undergraduates studies in the Department of Philosophy, one substitution course from outside this list may be allowed. All courses must be passed with a minimum grade of C (2.00).

Enrollment Requirements: Please contact the department for more information:
http://www.asu.edu/clas/philosophy/symb_sys_certificate.htm#symbolic_sys.

Technology Entrepreneurship ESTNECERT

IRA A. FULTON SCHOOL OF ENGINEERING

Entrepreneurial Programs Office

Contact: <http://www.fulton.asu.edu/entrepreneurship/> | info.entrepreneur@asu.edu | BYENG | 480/965-2825

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 on engineering, and who has little or no prior business education.

Program Requirement: This ASU 15-credit-hour certificate program is limited to students in the Ira A. Fulton School 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 and only prior to the fall semester of each academic year.

FSE301: Entrepreneurship for Engineers (Prerequisite: Junior standing IN A BACHELOR'S PROGRAM IN the Ira A. Fulton School of Engineering)

Once admitted to the cohort program, students must complete the certificate according to the following schedule:

Fall:

FSE400: Creating and Launching a Technology Venture (Prerequisite: FSE301 and admission to certificate program)

FSE401: Intellectual Property for a Technology Venture (Prerequisite: FSE301 and admission to certificate program)

Spring:

FSE402: Operating a Technology Venture (Prerequisite: FSE301 and admission to certificate program)

FSE403: Entrepreneurship Practicum (Prerequisite: FSE301 and admission to certificate program)

Enrollment Requirements: The qualifications for admission to the Certificate Program in Technology Entrepreneurship are junior standing in a bachelor's program in the Ira A. Fulton School of Engineering (Engineering) and successful completion of the selection interview process.

The selection interview process consists of two parts:

1. A letter of intent written by the student to the selection committee,
2. a live interview with the selection committee, which consists of at least one faculty, one EP Advisor 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>.

Translation Certificate LASPACERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

School of International Cultures and Letters

Description: The Translation Certificate program is designed to provide the advanced training required for professional translation in both public and private sectors, preparation for the rigorous examinations required by national and international agencies, and training as an ancillary skill for professional fields, such as international business, public health and medicine, and law, in accordance with guidelines recommended by the American Translators' Association.

Program Requirement:

Certificate Requirements

The certificate program consists of the following requirements:

Prerequisites

FLA 400 Linguistics SB (3) or SPA 400 Introduction to Spanish Linguistics (3) or equivalent
SPA 412 Advanced Conversation and Composition G (3)

Required

FLA 401 Translation Theory and Practice (3)

In-Service Practicum

FLA 484 Internship (2)

Also required are nine hours of applied translation electives in specialized areas chosen from the following courses:

FLA 481 Technical and Scientific Translation (3)
FLA 482 Business and Financial Translation (3)
FLA 483 Medical and Legal Translation (3)
FLA 485 Problems of Literary Translation (3)

Enrollment Requirements: Since entrance to professional translation is through work, cultural experience, and examination, the entrance requirements to this certificate program are:

1. a written proficiency examination in the source and the receptor languages at the level of completion of an advanced composition course in Spanish (SPA 412) and English (ENG 301), and
2. an academic year at a university in both a Spanish-speaking country and an English-speaking country, extensive work experience using Spanish and English, or demonstrated bilingual writing competence in English and Spanish.

Please contact the department for more information: <http://www.asu.edu/clas/silc/spa/certrans.htm>.

Women and Gender Studies Certificate LAWSTCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Women and Gender Studies Program

Description: 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. The certificate program is equivalent to an interdisciplinary minor.

Program Requirement: The certificate program consists of 18 semester 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 300) and WST 377 or 378 and an additional 12 semester hours from the list of approved Women and Gender Studies courses.

Enrollment Requirements: Please contact the department for more information: <http://wgs.asu.edu/students/index.html>.

Women's Studies Certificate ASWSTCERT

NEW COLLEGE OF INTERDISCIPLINARY ARTS & SCIENCES

Division of Humanities, Arts, & Cultural Studies

Description: The Certificate in Women's Studies within the New College of Interdisciplinary Arts and Sciences is an interdisciplinary program emphasizing intersectional approaches to the study of gender, race, class, ethnicity and sexuality in national and transnational contexts. The Women's Studies Certificate program is recommended for graduate students, nondegree students, and students majoring in professional programs.

Program Requirement: The Women's Studies certificate consists of 18 semester hours of course work. Students are required to choose three courses (nine semester hours) from the following core: WST 100 or WST 300; WST 350, WST 376, WST 457, or WST 498. Additionally, students are required to select a total of nine semester hours from courses in the following areas: global studies, representation and culture studies, gender studies and applied women's studies.

Core Requirements (nine hours)

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

Additional Requirements (nine hours)

Select nine semester hours from three of the four following areas.

Global Studies 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 Cultural 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)
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: Please contact the department for more information:
http://newcollege.asu.edu/programs/womens_studies/minor_cert/certificate.shtml.

Writing Certificate (Liberal Arts & Sciences) LAENGCERT

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of English

Description: The Writing Certificate is a declaration from ASU that a student has completed a course of study including 19 semester 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 Requirement: The Writing Certificate consists of 19 semester hours. 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 GPA of 3.00.

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)

Total 16

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: Please contact the department for more information:
<http://www.asu.edu/clas/english/writingcertificate/>.

Writing Certificate (New College) ASWRTCERT

NEW COLLEGE OF INTERDISCIPLINARY ARTS & SCIENCES

Division of Humanities, Arts, & Cultural Studies

Description: The Department of Language, Cultures, and History 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.

Program Requirement: Comprised of a minimum of 19 semester hours, the Writing Certificate program combines intensive course work, of which at least 12 semester 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.

Writing Certificate 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 semester hour.

Enrollment 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 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.

Please contact the department for more information: http://newcollege.asu.edu/programs/english/minor_certs/writing.shtml.

Undergraduate Degrees (Program Descriptions)

APPLIED ARTS AND SCIENCES, SCHOOL OF

Applied Biological Sciences (Applied Biological Sciences) (BS) TSABSABS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/appliedbiologicalsciences/> | appliedbiologicalsciences@asu.edu | WANER 340 | 480/727-1444

Program Description: The Department of Applied Biological Sciences offers rigorous and practical programs in applications of the biological sciences, including the applied biological sciences concentration. 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, the surrounding ecosystems and the landscape of the greater Phoenix area.

Language Requirement: N | *Program Fee:* N

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 also prepares graduates to succeed in graduate and professional schools in disciplines such as animal health, environmental biotechnology, medicine, dentistry, physical therapy, ecology, horticulture, and wildlife biology.

Applied Biological Sciences (Secondary Education in Biology) (BS) TSABSSBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/appliedbiologicalsciences/> | appliedbiologicalsciences@asu.edu | WANER Third Floor | 480/727-1444

Program Description: The applied biological sciences/secondary education concentration, under the BS in Applied Biological Sciences degree, 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 School of Educational Innovation and Teacher Preparation.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates can pursue numerous entry-level careers in biology. Specific careers include teach secondary education, wildlife and restoration ecology, and urban horticulture. Numerous employment opportunities exist in both the 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.

Applied Biological Sciences (Urban Horticulture) (BS) TSABSUBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/appliedbiologicalsciences/> | appliedbiologicalsciences@asu.edu | WANER Third Floor | 480/727-1444

Program Description: The urban horticulture concentration, under the BS 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 urban horticulture students how to practice principles and develop skills that help to create aesthetically pleasing urban environments. This approach is coupled with an appreciation of environmental conservation and stewardship.

Language Requirement: N | Program Fee: N

Career Opportunities: Graduates can pursue numerous entry-level careers in biology. Specific careers include wildlife and restoration ecology, urban horticulture, and secondary education. Numerous employment opportunities exist in both the 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.

Applied Biological Sciences (Wildlife and Restoration Ecology) (BS) TSABSRBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/appliedbiologicalsciences/> | appliedbiologicalsciences@asu.edu | WANER Third Floor | 480/727-1444

Program Description: The wildlife and restoration ecology concentration, under the BS 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. The reconstruction of degraded ecosystems to improve ecological structure and function, and to meet societal needs for sustainable and functional ecosystems is also emphasized.

Language Requirement: N | Program Fee: N

Career Opportunities: Graduates can pursue numerous entry-level careers in biology. Specific careers include wildlife and restoration ecology, urban horticulture, and secondary education. Numerous employment opportunities exist in both the 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.

Applied Psychology (BS) ECPSYBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/appliedpsych/> | SUTON, Second Floor | 480 7271177

Program Description: This major offers a traditional psychology core leading to graduate school preparation and/or to applications in human factors with emphasis on human-computer interaction, aviation, or manufacturing. The rigor of the major also provides strong preparation for further graduate study in psychology. The program serves students in other Polytechnic campus programs such as manufacturing engineering technology, aeronautical management technology, industrial technology and business administration.

Language Requirement: N | Program Fee: N

Career Opportunities: Most careers in psychology require completing a master's or a PhD degree, but there are some opportunities for employment in applied areas with good training at the bachelor's degree 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 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.

Exercise and Wellness (Exercise and Wellness) (BS) ECEXWBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Program Description: A degree 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. Such behaviors 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. One of the most unique aspects of the Exercise

and Wellness program is an outstanding internship program that provides preprofessional experience in all segments of the fitness, wellness, and health industry throughout the metropolitan Phoenix area.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Opportunities range broadly across the several sectors of the industry related to fitness, wellness, and the health promotion professions. Those settings include work site (corporate), health promotion/fitness, 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, athletic training, and physical therapy, as well as graduate study in exercise and wellness or physical activity nutrition and wellness.

Exercise and Wellness (Health Promotion) (BS) ECEXWHBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: mattingl@asu.edu | 480/727-1945

Program Description: The Bachelor of Science degree 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 unique aspect of the program is the outstanding internship opportunities which offer preprofessional experience in all segments of the health, health promotion, and health education and wellness professions throughout the metropolitan Phoenix area.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Career opportunities range broadly across the several sectors of the wellness industry and health promotion professions. Some examples 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 such health professions as governmental health agencies, public health, and graduate study in health promotion.

History and Culture (BA) ECHSTCULBA

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: www.poly.asu.edu/saas/humanitiesarts | BELL J1 | 480/727-1526

Program Description: The Bachelors of Arts (BA) degree in History and Culture focuses on public policy, archival work, Southwest history, and related fields. Six degree tracks are available: 1) archival preservation and digital media, 2) environmental history and culture, 3) history and culture of the American southwest, 4) history and philosophy of science and technology, 5) history and public policy, and 6) history for secondary teachers.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BA in History and Culture prepares scholars and teachers for graduate or professional study, and for 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, 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.

Literature, Writing and Film (BA) ECLWFBA

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: http://www.poly.asu.edu/saas/humanitiesarts/ | BELL J1 | 480/727-1526

Program Description: The Bachelor of Arts (BA) in Literature, Writing, and Film degree program focuses on effective writing, critical thinking, and sophisticated reading of literary and nonliterary texts. Six degree tracks are available: 1) English for

secondary teachers; 2) imaginative writing, literature, and digital publishing; 3) literature and film; 4) prelaw; 5) writing and recording family history; and 6) writing for special purposes.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BA program in Literature, Writing, and Film 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, marketing, lobbying, program management, editing, reporting, public relations, health care, social work, government, nonprofit organizations, and financial services.

Multimedia Writing and Technical Communication (BS) ECTWCBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://techcomm.asu.edu/>

Program Description: The Bachelor of Arts in Multimedia Writing and Technical Communication is the only undergraduate technical communication degree program available in the state of Arizona. Multimedia writing is writing that incorporates graphics, sound, design, and media. Technical communication is applied workplace communication that makes technical information understandable and available to many audiences. In the multimedia writing and technical communication program, students learn how to produce, design, and manage information using both traditional and developing technologies.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Bureau of Labor Statistics estimates that 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 industries are areas that will see an increased demand for writers. Students in the program will prepare for careers as technical writers, technical editors, Web page and intranet page designers, multimedia designers, desktop publishers, publications managers and information designers.

Nutrition (Dietetics) (BS) ECNTRDBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/nutrition/> | nutrition@asu.edu | HSC 1386 | 480/727-1728

Program Description: The dietetics concentration, under the BS in Nutrition degree, provides all of the academic course work a student needs to qualify to become a registered dietitian (RD). 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 RD. The dietetics program is currently granted accreditation by the Commission on Accreditation for Dietetics Education of the American Dietetic Association.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The nutrition/dietetics field provides employment opportunities in education, hospitals and other healthcare facilities, public health agencies, school food service, food/nutrition marketing and sales, nutrition/health promotion, and consulting.

Nutrition (Food and Nutrition Management) (BS) ECNTRMBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/>

Program Description: The Food and Nutrition Management concentration in the Bachelor of Science 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, along with the ability to develop a food or menu that meets a specific nutrition guideline. This degree prepares students to become food service directors at schools, healthcare facilities and corporate food service operations.

Language Requirement: N | *Program Fee:* N

Career Opportunities: This degree prepares students to become food service directors at schools, healthcare facilities and corporate food service operations. Our graduates aspire to own restaurants or nutrition-related businesses, work in food, supplement or pharmaceutical sales, or work in food marketing and distribution. Graduates can also pursue the credentials to be certified dietary managers and school food service and nutrition specialists.

Nutrition (Human Nutrition) (BS) ECNTRHBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/> | nutrition@asu.edu | HSC 1386 | 480/727-1728

Program Description: The human nutrition concentration, under the BS in Nutrition degree, 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, osteopathic medicine, pharmacy, naturopathic medicine, optometry, podiatry, and to serve as 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. The area of research is also a good fit for nutrition majors. Several outstanding scientists received their bachelor's degree from this program; add a master's or a PhD degree and the opportunities within the research field are unlimited.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The nutrition field provides employment opportunities in healthcare, public health, education, foodservice, 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 MS degree programs.

Nutrition (Nutrition Communication) (BS) ECNTRCBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: <http://www.poly.asu.edu/saas/> | nutrition@asu.edu | HSC 1386 | 480/727-1728

Program Description: The nutrition communication concentration, under the BS in Nutrition degree, 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 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 while not sacrificing reality in getting a better story.

Language Requirement: N | *Program Fee:* N

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, as public relations representatives for food and beverage companies, or as consultants in program or product development.

Science, Technology and Society (BS) ECSTSBS

SCHOOL OF APPLIED ARTS AND SCIENCES, POLY

Contact: sbscpoly@asu.edu | Bell Hall, G Section | 480/727-1987

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 STS program stresses the need to step outside both the 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:

Science, Technology, and Governance
Global Technology and Development
General STS

Language Requirement: N | *Program Fee:* N

Career Opportunities: The B.S. program in Science, Technology, and Society (STS) prepares professionals and scholars for careers in a twenty-first century world focusing primarily, but not exclusively, on the interaction of science and technology with human systems. Its graduates are prepared for professional careers in government, non-profit organizations, business, education, law, and for graduate or professional study. The focus of the program is on the technical skills required to audit the social, political, and policy impact of technological advancement and, at the same time, to develop the competence required to navigate questions surrounding the future trajectory of science and technology.

ARTS, KATHERINE K. HERBERGER COLLEGE OF THE

Art (Art Education) (BFA) FAARTEBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: Art education involves the study of art, policy making in art, how people learn about art, and how instructors or administrators can best facilitate teaching art. The BFA in Art with a concentration in art education focuses on public and private K-12 instruction, art in higher education, and educational programs in art museums.

Language Requirement: N | *Program Fee:* N

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 and/or community service groups that offer art instruction.

Additional Admissions Requirements: Students are admitted to the School of Art 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 College 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 Katherine K. Herberger College of 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.

Art (Art History) (BA) FAARTHBA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: Art history students study the history of the visual arts, and the theoretical and critical literature associated with the art of different cultures. The discipline of art history requires the development of critical writing skills, and use of such fields as history, philosophy, religious studies, literature, and anthropology. The BA in Art with a concentration in art history at ASU is one of the most rigorous undergraduate art degree programs in the U.S. Students must take courses in all major historical periods and also work in non-Western art traditions. Majors are encouraged to take some course work outside of art history, such as courses in museum studies, gallery exhibitions, and studio work.

Language Requirement: Y | *Program Fee:* N

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 PhD is a necessity for employment as a university or college teacher, and for responsible administrative posts in the museum and publishing world.

Additional Admissions Requirements: Students meeting the university requirements for admission may matriculate in the Katherine K. Herberger College of 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 College 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 Katherine K. Herberger College of 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.

Art (Art Studies) (BA) FAARTSTDBA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: The art studies curriculum offers students a broad educational foundation in the arts and general studies. The BA 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.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: Students meeting the university requirements for admission may matriculate in the Katherine K. Herberger College of 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 Katherine K. Herberger College of 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.

Art (Ceramics) (BFA) FAARTCBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: Students in the ceramics program learn the widest possible range of technical skills and aesthetic concerns within the field. They are encouraged to express themselves in any direction their concepts dictate, through the medium of ceramics. The BFA degree program in Art with a concentration in ceramics has an extensive guest speaker program of nationally recognized ceramic artists. The University Art Museum contributes further to the student experience through its significant collection of contemporary ceramic art, a large collection of early American pottery, and Southwestern Native American ceramics. Both undergraduate and graduate students exhibit work in local, regional, and national juried and invitational exhibitions.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Art (Drawing) (BFA) FAARTDBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: The majors within painting and drawing embrace a wide range of media, including acrylics, charcoal, graphite, oil and watercolor. The diverse faculty allow students to discover and explore a multitude of aesthetic and conceptual approaches in their artistic endeavors.

Language Requirement: N | *Program Fee:* N

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 a Master of Fine Arts (MFA) 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.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Art (Fibers) (BFA) FAARTFBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: Students in the fiber arts curriculum explore nearly every process used for the construction and decoration of fabric. Part of the program covers processes from very basic carding, spinning, dyeing, and felting of wool, to the use of the loom and the study of complex weave structures. The BFA in Art with a concentration in fibers degree program focuses on the history of fabric, clothing, shelter, and on contemporary fiber artists and designers. Part of the uniqueness of this program is the location. The Southwest has a long history of textiles, beautiful museums, and many cultures still practicing their traditional textile methods, as well as contemporary galleries and art centers that combine to make this area a fertile ground for developing artists.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates with a BFA degree 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.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Art (Intermedia) (BFA) FAARTIBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: Only about 10 schools in the U.S. offer intermedia programs. The BFA in Art with a concentration in intermedia program stresses an alternative definition of the arts based on a synthesis of different media, technology and personal imagery. This program emphasizes the following media/formats: 2-D or 3-D computer graphics and animation for design and fine art applications; video technology to produce art that synthesizes visual and aural imagery; performance art, which synthesizes theatre, music, dance and literary elements; installation, which produces images through alteration of a total gallery or site-specific space; audio art, which stands on its own and/or is combined with video, performance and installation; and mixed two- and three-dimensional media, which combines the use of traditional and nontraditional media and materials.

Language Requirement: N | *Program Fee:* N

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

Additional Admissions Requirements: Freshmen students applying to the Herberger College 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 Katherine K. Herberger College of 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.

Art (Metals) (BFA) FAARTMBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: The metals and jewelry program prepares students for a professional career in jewelry arts and related areas. The program emphasizes craft skills, attention to detail, critical thinking and creativity. The program boasts an extraordinarily well-equipped studio with a huge variety of metal-smithing tools. Students explore the close relationship with the school's sculpture and foundry programs, learn important entrepreneurial skills, and receive a strong foundation in technical vocabulary and skills of working with metal while being encouraged to experiment with alternative materials and techniques.

Language Requirement: N | *Program Fee:* N

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 master's of fine arts degree.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Art (Museum Studies) (BA) FAARTMSBA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: Museum studies students explore art history, art museums, art galleries, and visual arts organizations. The BA 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, and 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.

Language Requirement: Y | *Program Fee:* N

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. A Master of Art (MA) degree prepares individuals to teach at community colleges and to gain entry into museums, auction houses and publishing companies. The PhD degree is necessary for employment as a faculty member at a university or for administrative posts in museums and higher education.

Additional Admissions Requirements: Students meeting the university requirements for admission may matriculate in the Katherine K. Herberger College of 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 College 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 Katherine K. Herberger College of 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.

Art (Painting) (BFA) FAARTPABFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: The majors within painting and drawing embrace a wide range of media, including acrylics, charcoal, graphite, oil and watercolor. The diverse faculty allow students to discover and explore a multitude of aesthetic and conceptual approaches in their artistic endeavors.

Language Requirement: N | *Program Fee:* N

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 a Master of Fine Arts (MFA) 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.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Art (Photography) (BFA) FAARTPHBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: The photography program at ASU has earned an international reputation for the quality of its instruction and the broad range of classes offered, including courses in electronic media. Faculty in the School of Art offer the BFA degree in Art with a concentration in photography. Photography students study the practice of photography as a means for creative expression. This involves the development of technical skills, the development of a sound theoretical base, and an understanding of photography's history. In photography courses, students are involved in critiques of creative work, beginning and advanced criticism and theory, practice in all aspects of gallery management and history surveys, and seminars in 19th- and 20th-Century photography. In addition to a wide range of special topics, students study 19th-century printing processes, color and large format techniques, and portraiture.

Language Requirement: N | *Program Fee:* N

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. The BFA is essential for advanced study leading to the terminal MFA degree. This advanced degree offers opportunities in university teaching in history as well as studio areas; curatorial work in galleries, museums, and historical collections; and nonprofit arts organization management.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Art (Printmaking) (BFA) FAARTPMBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: Printmaking uses various graphic techniques to create visual art in printed, multiple form. The BFA in Art with a concentration in printmaking degree program is recognized nationally for excellence in its offerings. Many former graduates are working, teaching, and producing actively in print studios and collegiate printmaking programs across the country. Processes include intaglio (etching, engraving, dry point, aquatint, etc.), lithography, relief (woodcut, linoleum cut, letterpress, etc.), screen-printing, photomechanical techniques, monoprint, papermaking, and book arts media. Printmaking art is usually, but not always, two-dimensional and is often called the democratic art, since with multiple original copies, the artists visual ideas are available to a wider public. The university's research and publication program, the Pyracantha Press, a book arts press, has been highly regarded for years.

Language Requirement: N | *Program Fee:* N

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 do graphic design, illustration, 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.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Art (Sculpture) (BFA) FAARTSBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: ART 102 | 480/965-3468

Program Description: The BFA in Art with a concentration in sculpture degree program explores nearly all methods of three-dimensional expression, including modeling, metal casting, welding, woodworking, plastics, neon fabrication, carving and kinetic sculpture. ASU's sculpture program is one of the few in the country to include neon fabrication from start to finish.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are prepared to embark on a lifetime exploration of the many aspects of three-dimensional art. Positions are available in teaching, the fabrication and design of exhibitions, set design, the motion picture industry, welding, and three-dimensional design. Academic posts and positions with museums generally require advanced degrees. Many students also prefer to establish their own studios after graduation.

Additional Admissions 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 College 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 Katherine K. Herberger College of 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.

Dance (BFA) FADANBFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: PEBE 107A | 480/965-1891

Program Description: The Department of Dance provides a dynamic and culturally diverse learning environment where students develop as creative artists, scholars, and educators. The BFA 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, and criticism, movement science, somatics, and stage and screen production enhance the rich educational setting.

Language Requirement: N | *Program Fee:* N

Career Opportunities: A comprehensive academic foundation prepares dance professionals for the 21st century by developing the expertise and 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.

Additional Admissions Requirements: Students are admitted as dance interview majors and must successfully complete an interview before enrolling in major courses. More information on the interview process can be found at <http://dance.asu.edu/undergraduate/interviews.htm>.

Prospective students may attend the Prospective Interview Day in February or the Enrolled Student Interview held at the beginning of each semester.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Dance (Dance Education) (BFA) FADANE BFA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: PEBE 107A | 480/965-1891

Program Description: The Bachelor of Fine Arts degree in dance with a concentration in dance education prepares students to teach dance in elementary and secondary schools and in private studio settings. 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. Students complete the initial teacher certification (ITC) program in the Mary Lou Fulton College of Education to fulfill the degree requirements in the BFA (Dance Education) and become certified to teach dance (K-12) in Arizona public schools.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The concentration in dance education lays the foundation for a career in teaching in public and private settings. Students earn 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.

Additional Admissions Requirements: Students are admitted as dance interview majors and must successfully complete an interview before enrolling in major courses. More information on the interview process can be found at <http://dance.asu.edu/undergraduate/interviews.htm>.

Prospective students may attend the Prospective Interview Day in February or the Enrolled Student Interview held at the beginning of each semester.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Film (Film and Media Production) (BA) FAFLMBA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://theatrefilm.asu.edu> | theatre@asu.edu | GHALL 232 | 480/965-5337

Program Description: The School of Theatre and Film offers a Bachelor of Arts (BA) degree 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. Students in the film and media production concentration have access to digital cameras, lighting, and sound equipment in a new teaching studio. Post-production facilities include multiple computer editing stations. The curriculum's course work in ethics in entertainment and dramatic analysis are two other unique components.

Language Requirement: N | *Program Fee:* N

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 BA degree 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.

Additional Admissions Requirements: Students will be admitted to ASU as film (FMP) exploratory majors. They must complete a series of course requirements including successfully passing a portfolio review and interview to be accepted into the concentration and be eligible for upper division coursework in film and media production. Interviews are conducted in fall and spring semesters.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Music (BA) FAMUSBA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Arts in Music is a broad cultural degree program with an emphasis on the concepts of music history and theory. These concepts are concerned with the intellectual study of music, its stylistic evolution, and its place in the world of its time. This degree may be used as a first step toward a master's or doctorate degree in music history or combined with other degree programs.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Music research, criticism, publishing, and concert management are among the career opportunities. Many graduates pursue a master's or a doctorate in music or in another professional field.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at: <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Music Education (Choral-General) (BMUS) FAMUSCBMUS

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Music in music education (choral-general) degree program is designed for students interested in pursuing careers as teachers of general or choral music in elementary and secondary schools. This program also provides an opportunity for K-12 teaching certification.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates teach in public 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.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at: <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Music Education (Instrumental) (BMUS) FAMUSIIBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Music in music education (instrumental) degree program is designed for students interested in pursuing careers as teachers of instrumental music (band, winds) in the public schools. The degree program provides an opportunity for K-12 teaching certification.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates teach in public 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.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at: <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Music Education (String) (BMUS) FAMUSISBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Music in music education (string) degree program is designed for students interested in pursuing careers as teachers of string and orchestra music in the public schools. The degree program provides an opportunity for K-12 teaching certification.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates teach in public 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.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Music Therapy (BMUS) FAMUSTHBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu>

Program Description: The Bachelor of Music in Music Therapy degree 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 skill 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.

Language Requirement: N | Program Fee: N

Career Opportunities: Graduates are eligible to register as professional music therapists and can sit for the music therapy certification exam given by the Certification Board for Music Therapy. Jobs are available nationally in hospitals, schools, rehabilitation centers, nursing homes, and other healthcare facilities offering therapists an opportunity to work with a wide variety of clients. 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.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at:

<http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Performance (Collaborative Piano) (BMUS) FAMUSPPBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu>

Program Description: The Bachelor of Music degree in performance with a concentration in collaborative piano focuses on core repertoire: the English, German, and French song literature and selected works from the instrumental, operatic, and oratorio repertoire. The program offers private instruction, supervised ensemble work, and ample opportunity for extensive performance experience. 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. Few college music schools or departments offer a degree with a concentration in collaborative piano.

Language Requirement: N | Program Fee: N

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 or college teacher of piano and/or collaborative piano. College-level teaching does require a graduate degree, however.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at:

<http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Performance (Guitar) (BMUS) FAMUSPGBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Music degree 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. Students complete course work that is required of all music majors.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Career opportunities for graduates with a BMUS degree 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; performing 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.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at:

<http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Performance (Jazz) (BMUS) FAMUSPJBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The jazz concentration, under the Bachelor of Music (BMUS) in Performance degree, places an emphasis on the improvisational aspects of jazz. Jazz studies at ASU combines jazz performance, composition and pedagogy in a program that allows the student to express themselves 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 recording studios, film scoring, writing and arranging, contemporary composition, jazz pedagogy and other related fields in the music industry.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at:

<http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Performance (Keyboard) (BMUS) FAMUSPKBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Music degree in Performance with a concentration in keyboard stresses the study of literature and techniques of the piano, organ, or harpsichord. Students also study music theory and take other courses required of all music majors. The course of study includes extensive performance experience.

Language Requirement: N | *Program Fee:* N

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. This particular degree program is intended for individuals planning a career as a professional performer and/or private studio or college teacher of piano, harpsichord, and/or organ. College-level teaching does require a graduate degree, however.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at:

<http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Performance (Music Theatre) (BMUS) FAMUSPMBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The curriculum within the Bachelor of Music degree in Performance with a concentration in music theatre features workshops in music theatre performance techniques, as well as performances in various kinds of musical theatre. Students perform in 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 that students are not dependent upon classes in music and theatre as separate entities. The general education requirements include courses in dance and acting.

Language Requirement: Y | *Program Fee:* N

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. Others perform on Broadway, in national touring companies, in major opera houses, or at universities, colleges and schools.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at: <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Performance (Orchestral Instrument) (BMUS) FAMUSPOBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu>

Program Description: The Bachelor of Music degree 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. Students complete course work that is required of all music majors

Language Requirement: N | *Program Fee:* N

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. Specific opportunities available to graduates of this degree program include: Performance in professional ensembles or as a concert soloist, and teaching privately and/or at the college level. College-level teaching does require a graduate degree, however.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at: <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Performance (Voice) (BMUS) FAMUSPVBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Music degree 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. Students complete course work that is required of all music majors

Language Requirement: Y | *Program Fee:* N

Career Opportunities: A degree in the arts offers students a pathway to a rich and varied choice of careers. Career opportunities for BMUS in Performance degree graduates include professional performance in opera, oratorio, art song recitals, and various chamber ensembles, including early music groups; and/or teaching studio voice and related courses.

Additional Admissions Requirements: Students are admitted as music audition majors and must successfully complete an audition before enrolling in major courses.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Theatre (BA) FATHEBA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://theatrefilm.asu.edu/>

Program Description: The Bachelor of Arts (BA) in Theatre involves comprehensive academic and hands-on theatre study. 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. Concentrations in acting or design and production are available for students who qualify for admission into these programs. ASU offers well-equipped theatre facilities including the Galvin Playhouse, the Lyceum Theatre, the Prism Theatre for student-produced works, extensive shops, and uniquely equipped rehearsal and instructional spaces.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BA in Theatre degree 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, in themed entertainment, or in arts entrepreneurship.

Additional Admissions 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 Katherine K. Herberger College of 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.

Theatre (Acting) (BA) FATHEABA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://theatrefilm.asu.edu/> | theatre@asu.edu | GHALL 232 | 480/965-5337

Program Description: The Bachelor of Arts (BA) in Theatre with a concentration in acting involves intensive academic and hands-on theatre study. 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BA in Theatre degree 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 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.

Additional Admissions 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. After students are admitted to the BA 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 Katherine K. Herberger College of 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.

Theatre (Design and Production) (BA) FADSNPRBA

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://theatrefilm.asu.edu/> | theatre@asu.edu | GHALL 232 | 480/965-5337

Program Description: The Bachelor of Arts (BA) in Theatre with a concentration in design and production involves intensive academic and hands-on theatre study. 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 theatrical facilities including the Galvin Playhouse, the Lyceum Theatre, the Prism Theatre for student-produced work, extensive and professionally staffed production shops, and uniquely equipped rehearsal and instructional spaces.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BA in Theatre degree 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 careers in the performing arts and the entertainment industry as designers or technologists.

Additional Admissions 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 Katherine K. Herberger College of 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.

Theory and Composition (Composition) (BMUS) FAMUSTCBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu> | MUSIC E167 | 480/965-3371

Program Description: The Bachelor of Music in Theory and Composition (with a concentration in composition) degree 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 doctorate degree in music theory and composition. The School of Music's prestigious theory and composition faculty offer students the opportunity to study with composers who have established national and international reputations.

Language Requirement: N | *Program Fee:* N

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, however.

Additional Admissions Requirements: Students are admitted to the school as music audition majors. Admission into the Music Theory and Composition degree program is subject to a successful audition in the major performing medium. An interview with composition faculty member(s) and an evaluation of original compositions is also required.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at:

<http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

Theory and Composition (Theory) (BMUS) FAMUSTTBM

KATHERINE K. HERBERGER COLLEGE OF THE ARTS, TEMPE

Contact: <http://music.asu.edu>

Program Description: The Bachelor of Music in Theory and Composition (with a concentration in theory) degree program focuses on the theoretical study of music. This program may be used as the first step toward a master's or doctorate degree in music theory and composition. The School of Music's prestigious theory and composition faculty offer students the opportunity to study with composers who have established national and international reputations.

Language Requirement: N | *Program Fee:* N

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, however.

Additional Admissions Requirements: Students meeting the university requirements for admission may matriculate in the Katherine K. Herberger College of the Arts. Separate admission procedures and approvals are required for some programs within the college. Students must contact specific departments or schools for details.

Students wishing to pursue a major in the School of Music must successfully complete an audition before enrolling in major course work. Audition information can be found on the School of Music Web site at <http://music.asu.edu/students/prospective/undergrad/apply.php>. The Web site details the enrollment and audition process.

Direct transfer of courses from other accredited institutions to the Katherine K. Herberger College of 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.

BUSINESS, W. P. CAREY SCHOOL OF

Accountancy (BS) BAACCB

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu/acc> | wpcareyacc@asu.edu | BA 223 | 480/965-3631

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 job market for accounting graduates has never been better, and the U.S. Bureau of Labor Statistics projects that the employment of accountants will continue to grow by 10-20 percent annually. 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 thought 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 AACSB International and is consistently ranked among the top programs in the nation in bachelor's, master's, and Ph.D. programs.

Language Requirement: N | *Program Fee:* Y

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; or planning to pursue a graduate degree or attend law school.

Additional Admissions 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.

Business (Communication) (BA) BABUSCBA

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

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

Program Description: The Bachelor of Arts in Business with a communication concentration 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.

Language Requirement: N | *Program Fee:* N

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 better qualified to enter these positions with knowledge that will be immediately useful to potential employers while advancing their careers.

Additional Admissions 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.

Business (Sustainability) (BA) BABUSSBA

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

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

Program Description: The Bachelor of Arts in Business with a sustainability concentration 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.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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.

Business (Tourism) (BA) BABUSTBA

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

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

Program Description: The Bachelor of Arts in Business with a tourism concentration 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.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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.

Business (Urban Policy) (BA) BABUSUBA

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

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

Program Description: The Bachelor of Arts in Business with an urban policy concentration is an innovative, inter-disciplinary program intended to prepare students for positions in a variety of professions where business and urban policy play an important role in ensuring success.

Language Requirement: N | *Program Fee:* N

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 BA in Business with an Urban Policy concentration will be well equipped to deal with the wide range of economic and business development issues.

Additional Admissions 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.

Computer Information Systems (BS) BACISBS

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu/is> | wpcareyis@asu.edu | BA 301P | 480/965-3252

Program Description: In today's world, it is hard to find a business that is not totally 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 assure you 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: business process analysis, project management, evidenced-based decision-making, the information value-chain, databases and data modeling, application program development, network deployment and systems integration. This is your opportunity to join a team of motivated students - become part of one of the nation's highest ranked Computer Information Systems departments.

Language Requirement: N | *Program Fee:* Y

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 CIS degree include chief information officer (CIO), chief technology officer (CTO), chief knowledge officer (CKO), chief security officer (CSO) and chief executive officer (CEO).

Additional Admissions 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.

Economics (BS) BAECNBS

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu/ecn> | wpcareyecn@asu.edu | BAC 659 | 480/965-3531

Program Description: The Economics Department is committed to providing students a first-class educational experience. 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; and in banking and financial services firms. Each year many graduates pursue studies at some of the best graduate schools in the country. Faculty have received numerous teaching awards and their teaching evaluations from students are consistently high. The economics faculty is also actively engaged in scholarly research leading to publication in the major economics journals.

Language Requirement: N | *Program Fee:* Y

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.

Additional Admissions 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.

Finance (BS) BAFINBS

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu> | wpcareyfin@asu.edu | BAC 519 | 480/965-3131

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.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: Students majoring in finance are prepared for careers in corporate financial management, investment banking, consulting, depository institutions, portfolio analysis, investment management and financial services.

Additional Admissions 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.

Management (BS) BAMGTBS

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu/mgt> | wpcareymgt@asu.edu | BA 323 | 480/965-3431

Program Description: Today's ethical and responsible leaders have to be effective team builders. The leaders of companies that are succeeding in the new global marketplace possess excellent written and oral communication skills and extensive experience in guiding collaborative teams. The management major is at the leading edge with its strong emphasis on collaboration, leadership, communication, team building, business ethics and corporate social responsibility, and community engagement. Students in the major engage with community-based group projects in not-for-profit and for-profit business settings. The curriculum begins with immersion in the fundamentals of the global economy, the world of e-business and collaborative teams. Throughout the program, understanding of theory 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 in the classroom and in the community.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: The management major prepares men and women for managerial leadership in a world characterized by the fast pace of e-business; demands for continuous process improvements to enhance the value chain; growing technological sophistication; racial, cultural and gender diversity in the workforce; ethical decision making; corporate accountability, cross-functional management; and the need for skills in communicating and working with people, directing projects, and managing change. Graduates with these skills 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.

Additional Admissions 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.

Management (Entrepreneurship) (BS) BAMGTEBS

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu/mgt> | wpcareymgt@asu.edu | BA 323 | 480/965-3431

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.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: The entrepreneurship concentration within the Management major prepares men and women 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.

Additional Admissions 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.

Marketing (BS) BAMKTBS

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu/mkt> | wpcareymkt@asu.edu | BAC 460 | 480/965-3621

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 of the Center for Services Leadership, the premier international center for the study of services marketing, and offers distinctive coursework in professional sales, relationship management and sports business.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: Through the proper selection of coursework and other educational experiences, a marketing student may prepare for a variety of careers in areas such as professional sales and relationship management, business development, sales management, marketing communications, services marketing, business-to-business marketing, international marketing, market research and information management, customer relationship management or retail management. The degree program provides fundamentals, flexibility and specialization opportunities.

Additional Admissions 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.

Supply Chain Management (BS) BASCMBS

W. P. CAREY SCHOOL OF BUSINESS, TEMPE

Contact: <http://wpcarey.asu.edu/scm> | wpcarey.scm@asu.edu | BA 446 | 480/965-6044

Program Description: Supply chain management brings us an abundance of affordable, high quality goods. Supply chain managers manage, coordinate, manufacture, and transport products from raw materials to the 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.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: Our program prepares graduates to become excellent supply chain managers by focusing on planning, procurement, negotiations, logistics, 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.

Career track progression can lead to the vice president level in supply-chain-related areas. Firms recruit ASU SCM 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, and we have excellent placements. Following are some positions that our graduates have been hired into: planner or analyst; buyer/planner; production scheduler; quality control specialist; internet marketing analyst; supply management analyst; inventory specialist; operations planner/analyst; materials manager; commodity manager; logistics planner; production coordinator; distribution manager; production line manager; product forecaster.

Additional Admissions 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.

DESIGN, COLLEGE OF

Architectural Studies (BSD) ARSTDBSD

COLLEGE OF DESIGN, TEMPE

Contact: <http://design.asu.edu/sala> | design.advising@asu.edu | CDN 162 | 480/965-3536 |

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 the Bachelor of Science in Design (B.S.D.) degree with a major 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 college and across the university. These electives may be selected to devise a minor, to further professional study, or in some other fashion to 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.

Language Requirement: N | *Program Fee:* N

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, or for industries, corporations or governmental agencies.

Additional Admissions 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.

Design Studies (BA) ARDSNBA

COLLEGE OF DESIGN, TEMPE

Contact: <http://design.asu.edu/ba> | design.advising@asu.edu | CDN 162 | 480/965-7007

Program Description: The B.A. in Design Studies is a highly flexible program of study with three specific directions. Much like a liberal arts degree, there is a general path where students select design and design-related courses offered in the college and throughout the university. Two concentrations are more specific: design history, with a strong focus of the historical aspects of design as they pertain to the disciplines in the college, and design management, which offers a selection of courses in management and human communication that complement design. Irrespective of the direction selected, students are also expected to acquire a breadth of design knowledge via courses taken from three categories: general design, design history and communication for design.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Although a specific career path is not the principal intention of the Bachelor of Arts 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.

Design Studies (Design History) (BA) ARDSNHBA

COLLEGE OF DESIGN, TEMPE

Contact: design.advising@asu.edu | CDN 162 | 480/965-7007

Program Description: The BA in Design Studies with a concentration in design history is a highly flexible program of study. Much like a liberal arts degree, there is a general path where students select design and design-related courses offered in the college and throughout the university. This concentration program places a strong focus of the historical aspects of design as they pertain to the disciplines in the college. Students acquire a breadth of design knowledge via courses taken from three categories: general design, design history and communication for design.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Although a specific career path is not the principal intention of the Bachelor of Arts 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.

Design Studies (Design Management) (BA) ARDSNMBA

COLLEGE OF DESIGN, TEMPE

Contact: design.advising@asu.edu | CDN 162 | 480/965-7007

Program Description: The BA in Design Studies with a concentration in design management is a highly flexible program. Much like a liberal arts degree, there is a general path where students select design and design-related courses offered in the college and throughout the university. This concentration program offers a selection of courses in management and human communication that complement design. Students are also expected to acquire a breadth of design knowledge via courses taken from three categories: general design, design history and communication for design.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Although a specific career path is not the principal intention of the Bachelor of Arts 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.

Graphic Design (BSD) ARGRABSD

COLLEGE OF DESIGN, TEMPE

Contact: <http://design.asu.edu/viscom/index.shtml> | design.advising@asu.edu | CDN 162 | 480/965-8947

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 Bachelor of Science in Design degree with a major 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 coursework (or its approved equivalent) at any point of entry.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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.

Housing and Community Development (BSD) ARHCDBSD

COLLEGE OF DESIGN, TEMPE

Contact: <http://design.asu.edu/hud> | design.advising@asu.edu | 777 S. College Ave., Ste. 205 | 480/965-7007

Program Description: The Bachelor of Science in Design with a major in Housing and Community Development provides a professional-level education in residential and community development. Students enrolled in the program receive instruction in the development of a broad range of housing types and community environments. Cross-disciplinary instruction in design, real estate development and construction management is also emphasized. The program places a high value on affordability, neighborhood creation and sustainable development.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The majority of recent graduates have positions in the private, residential and land development industries. Others have chosen career paths with public and nonprofit housing and neighborhood redevelopment agencies.

Additional Admissions 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.

Industrial Design (BSD) ARINDBSD

COLLEGE OF DESIGN, TEMPE

Contact: <http://design.asu.edu/industrial> | design.advising@asu.edu | CDN 162 | 480/965-1767

Program Description: Industrial designers are responsible for the design of products and systems that people use in their work, play and daily lives. The School of Design Innovation offers the Bachelor of Science in Design (BSD) degree with a major in Industrial Design. 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; and
3. improve society and the environment.

This is an eight-semester program requiring sequential completion of studio coursework (or its approved equivalent) at any point of entry.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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.

Interior Design (BSD) ARINTBSD

COLLEGE OF DESIGN, TEMPE

Contact: <http://design.asu.edu/interior/index.shtml> | design.advising@asu.edu | CDN 162 | 480/965-3571

Program Description: Course work in the Bachelor of Science in Design with a major 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 coursework (or its approved equivalent) at any point of entry.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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.

Landscape Architecture (BSLA) ARPLABSLA

COLLEGE OF DESIGN, TEMPE

Contact: design.advising@asu.edu | CDN 162 | 480/965-3536

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 includes site planning, urban design, computer methods, landscape construction, bioengineering, and planning and zoning law.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates in Landscape Architecture are able to pursue career opportunities in private landscape architecture companies as well as 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.

Additional Admissions 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.

Urban Planning (BSP) ARPUPBSP

COLLEGE OF DESIGN, TEMPE

Contact: <http://design.asu.edu/planning> | design.advising@asu.edu | CDN 162 | 480/965-7167

Program Description: Urban planners guide communities in making wise decisions about their use of land and resources. The Bachelor of Science in Planning (B.S.P.) degree 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, site planning, urban design, and public-policy formulation and administration. Planning includes landscape architecture and urban design, computer and research methods, urban and development economics, housing, environmental impact assessment, planning and zoning law, transportation, utilities, geographic information systems, and public policy formulation and administration.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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.

EDUCATION, MARY LOU FULTON COLLEGE OF

Early Childhood Education (BAE) EDECDBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The early childhood education program prepares preservice teachers to teach children in kindergarten through third grade, as well as in preschool or infant/toddler programs. This includes children from birth through age eight. The program emphasizes inter-professional and community-based preparation of educators who wish to create unique academic and social environments for children in diverse settings. Teaching in early childhood settings requires a specialized depth of knowledge of how children develop and an expertise in curricular content as well as an array of culturally relevant approaches for working effectively with children.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Students completing a Bachelor of Arts in Education (BAE) degree in early childhood education are recommended for Early Childhood Education, Birth--Age 8 certificate and may also be eligible for a provisional English as a Second Language endorsement and an additional certificate to teach in elementary grades.

Elementary Education (BAE) EDEEDBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: Elementary education prepares preservice teachers for classrooms in elementary and middle schools. Preservice teachers are required to have a broad knowledge of how children develop as well as a broad knowledge of the subjects taught. Internships in school settings prepare preservice teachers with effective teaching strategies and experience working in schools. A school internship is required each semester, and student teaching is required in the final semester of the program.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Bachelor of Arts in Education (BAE) leads to a recommendation for elementary teacher certification and students may also be eligible for a provisional English as a Second Language endorsement. Graduates are prepared for entry-level teaching positions in elementary, middle and junior high schools.

Elementary Education (Indigenous Teacher Preparation) (BAE) EDIEDBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The Indigenous Teacher Preparation Program (ITP) emphasizes Indian education, cultural knowledge, and sensitivity to the unique sociocultural issues relevant to indigenous children and families. ITP prepares preservice teachers for elementary certification with an enriched and specialized curriculum to underscore teaching techniques and strategies that will enhance student achievement for all indigenous learners. A school internship is required each semester of the program, and student teaching is completed in a setting with children from indigenous cultures.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Bachelor of Arts in Education (BAE) with a concentration in indigenous teacher preparation leads to a recommendation to teach in elementary, middle and junior high schools and students may also be eligible for a provisional English as a Second Language endorsement. Graduates are prepared for teaching and leadership positions in indigenous communities.

Elementary Education (Multilingual/Multicultural) (BAE) EDMLMCBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The elementary education program in multilingual/multicultural education prepares pre-service teachers to teach children in our increasingly diverse classrooms in elementary and middle schools. The program has focused field requirements in classrooms with English-language learners and includes the course work required for the bilingual or English as a Second Language endorsement.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Bachelor of Arts in Education (BAE) with a multilingual/multicultural concentration leads to a recommendation to teach in elementary, middle and junior high schools and a bilingual endorsement or English as a Second Language endorsement.

Secondary Education (Biological Sciences) (BAE) EDBIOBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Business) (BAE) EDBUSBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Chemistry) (BAE) EDCHMBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Earth and Space Sciences) (BAE) EDESSBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Economics) (BAE) EDECNBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (English) (BAE) EDENGBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education prepares preservice teachers who wish to teach adolescents in seventh through 12th grade. In order to integrate teacher education preparation with the secondary education requirement for an academic specialization, the College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in many subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Music-Strings, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (French) (BAE) EDFREBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Geography) (BAE) EDGCUBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. (Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.)

Secondary Education (German) (BAE) EDGERBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (History) (BAE) EDHISBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Japanese) (BAE) EDJPNBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Mathematics) (BAE) EDMATBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Physics) (BAE) EDPHYBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Political Science) (BAE) EDPOSBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Social Studies) (BAE) EDSSTBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Secondary Education (Spanish) (BAE) EDSPABAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The BAE in Secondary Education program in the Mary Lou Fulton College of Education 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 College of Education maintains connections with academic departments across the university. Each program semester requires an internship in the schools, and some courses are taught in the field.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates are eligible for secondary certification in grades seven to 12 in one of 19 subject specializations: Art, Biological Sciences, Business, Chemistry, Dance, Economics, English, French, Geography, German, History, Japanese, Mathematics, Music-Choral, Music-Instrumental, Physics, Political Science, Social Studies, Spanish and Space and Earth Science. Students in art, music and dance complete a K-12 endorsement in their field. Art and dance education majors are offered through corresponding Bachelor of Fine Arts degree programs. Those seeking certification in music may focus on either the choral-general music or instrumental music concentrations offered through the Bachelor of Music degree program.

Special Education (BAE) EDSPEBAE

MARY LOU FULTON COLLEGE OF EDUCATION, TEMPE

Program Description: The special education program prepares preservice teachers to teach children and adolescents in kindergarten through 12th grade who have learning disabilities, mental retardation, or emotional/ behavioral disorders. Teaching in special education requires an in-depth knowledge of how individuals with special needs learn. Preservice teachers are prepared to develop strategies and techniques for teaching along with a broad knowledge of general education subjects. A school internship is required for each semester of the program. The program is aligned with the standards of the Council for Exceptional Children.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Bachelor of Arts in Education (BAE) in special education leads to a recommendation for certification in K-12 special education in Arizona. This program provides preparation in each disability area; however the certificate the student qualifies for will be determined by his or her student teaching placement.

EDUCATIONAL INNOVATION AND TEACHER PREPARATION, SCHOOL OF

Early Childhood Education (BAE) ECEDCBAE

SCHOOL OF EDUCATIONAL INNOVATION AND TEACHER PREPARATION, POLY

Contact: <http://poly.asu.edu/education/> | polytechniceducation@asu.edu | SH 140 | 480/727-1103

Program Description: The BAE in Early Childhood Education is a practice-oriented degree program designed to prepare future teachers for the Pre K-3 classroom. This program is unique in its focus on field experiences, professional development, practical application of current theory and educational technologies. The newly revised curriculum focuses on and directly aligns with Arizona's standards for teachers and the requirements for Early Childhood certification. Students apply what they are learning by participating in field internships each semester that are directly linked to course discussions and assignments. 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 educational methodology courses in the evening at the Polytechnic campus and intensive field experiences in local preschool and K-3 grade classrooms. Students graduate from this program ready to start a successful teaching career.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Early Childhood Education program is primarily focused on preparing teachers for Preschool and K-3 classrooms and related professions in the broader discipline. Additional career opportunities exist in the areas of educational sales, professional development leadership, technical education, child care and tutoring. With advanced training, graduates can also pursue careers in a range of areas including school administration, instructional design, special education, counseling and physical education.

Elementary Education (BAE) ECEEDBAE

SCHOOL OF EDUCATIONAL INNOVATION AND TEACHER PREPARATION, POLY

Program Description: The BAE in Elementary Education is a practice-oriented degree program designed to prepare future teachers for 1-8 grade classroom settings. This program is unique in its focus on field experiences, professional development, practical application of current theory and educational technologies. The curriculum directly aligns with Arizona's standards for teachers. Students apply what they are learning by participating in field internships each semester that are directly linked to course discussions and assignments. 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 educational methodology courses and intensive field experiences/student teaching in daytime or evening cohorts at the Polytechnic campus or in evening district-based school partnerships. Course instructors have taught in a variety of Pre K-12 grade settings and augment class experiences with practical applications.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Elementary Education program focuses on preparing classroom teachers for grades 1-8 and related professions in the broader discipline. Additional career opportunities exist in the areas of educational sales, professional development leadership, technical education, child care and tutoring. With advanced training, graduates can also pursue careers in a range of areas including school administration, instructional design, special education, counseling and physical education.

Secondary Education (Physical Education) (BAE) ECPPEBAE

SCHOOL OF EDUCATIONAL INNOVATION AND TEACHER PREPARATION, POLY

Contact: <http://poly.asu.edu/education/> | polytechniceducation@asu.edu | SH 140 | 480/727-1103

Program Description: The physical education concentration under the BAE in Secondary Education prepares future teachers for the K-12 physical education classroom. This program is unique in its practice-oriented focus on intensive field experiences, practical application of current theories, a field-tested and widely used curriculum and classroom management model, and an emphasis on current technology. The newly revised curriculum directly aligns with Arizona's standards for teachers and the National Association for Sport and Physical Education's 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 educational methodology courses and intensive field experiences at both the elementary and secondary level. Course instructors use their experience teaching in a variety of K-12 settings and coaching environments to augment class experiences with many practical applications.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The physical education program prepares educators who wish to teach in kindergarten through 12th grade and related professions in the broader discipline. Students receive a secondary teaching certificate with a K-12 endorsement for physical education. School districts often offer additional stipends for coaching sport teams, ESL and BLE endorsements, extracurricular activities, and administrative responsibilities. With advanced training, graduates can pursue careers in a range of areas including school administration, instructional design, special education, counseling and sports administration.

Additional Admissions 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.

Special Education (BAE) ECSPEBAE

SCHOOL OF EDUCATIONAL INNOVATION AND TEACHER PREPARATION, POLY

Contact: <http://poly.asu.edu/education/> | polytechniceducation@asu.edu | SH 140 | 480/727-1103

Program Description: The BAE in Special Education is a practice-oriented degree program that uses extensive field experiences along with both general and special education methods courses to provide students with an understanding of a variety of classroom environments and the responsibilities of programming for children with disabilities. This program is unique in its focus on field experiences, professional development, practical application of current theory and educational technologies. Students apply what they are learning by participating in field internships each semester that are directly linked to course discussions and assignments. 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 educational methods courses in the evening at the Polytechnic campus and intensive field experiences in local K-12 classrooms. Graduates will be eligible for K-12 special education cross-categorical certification and may choose to dually certify in elementary education or in a specific content area for secondary education. Course instructors have taught in a variety of K-12 settings and augment class experiences with practical applications.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Special Education program focuses on preparing classroom teachers for the K-12 setting and related professions in the broader discipline. Additional career opportunities exist in the areas of professional development leadership, child care and tutoring. With advanced training, graduates can also pursue careers in a range of areas including school administration, instructional design, special education, counseling and physical education.

ENGINEERING, IRA A. FULTON SCHOOL OF

Aerospace Engineering (Aeronautics) (BSE) ESAEROBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://mae.fulton.asu.edu> | mae@asu.edu | ECG 346 | 480/965-3291

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 BSE 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. The objectives of the Aerospace Engineering program at ASU are: 1) (Career Preparation) Provide the depth and breadth of engineering education that prepares graduates for employment in the aerospace engineering profession; admission to graduate programs in aerospace engineering or a related field; or the pursuit of advanced education in other professional areas, such as business, law or medicine. 2) (Technical Competence) Provide graduates with the technical skills for career success, including the ability to think in a critical and evaluative manner and to consider a broad perspective in order to solve technical and nontechnical problems. 3) (Professionalism) Prepare graduates with the professional skills for career success, including an awareness of ethical responsibility and the ability to communicate well and work successfully within diverse groups. The Aerospace Engineering programs at ASU are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410/347-7700.

Language Requirement: N | *Program Fee:* N

Career Opportunities: A majority of students entering the field of aerospace engineering share a desire to work on the design and analysis of aerospace vehicles. Thus 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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Aerospace Engineering (Astronautics) (BSE) ESAEASBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://mae.fulton.asu.edu> | mae@asu.edu | ECG 346 | 480/965-3291

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 concentration, under the BSE in Aerospace Engineering, is offered in partnership with the School of Earth and Space Exploration. The 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 study alongside students majoring in exploration science, and design projects are carried out within transdisciplinary student teams. The objectives of the Aerospace Engineering program at ASU are: 1) (Career Preparation) Provide the depth and breadth of engineering education that prepares graduates for employment in the aerospace engineering profession; admission to graduate programs in aerospace engineering or a related field; or the pursuit of advanced education in other professional areas, such as business, law or medicine. 2) (Technical Competence) Provide graduates with the technical skills for career success, including the ability to think in a critical and evaluative manner and to consider a broad perspective in order to solve technical and nontechnical problems. 3) (Professionalism) Prepare graduates with the professional skills for career success, including an awareness of ethical responsibility and the ability to communicate well and work successfully within diverse groups. The Aerospace Engineering programs at ASU are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410/347-7700.

Language Requirement: N | *Program Fee:* N

Career Opportunities: A majority of students entering the field of aerospace engineering share a desire to work on the design and analysis of aerospace vehicles. Thus 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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**

- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Bioengineering (BSE) ESBMEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://hdbe.fulton.asu.edu> | <http://hdbe.fulton.asu.edu/contact> | ECG 334 | 480/965-3028

Program Description: Bioengineering uses principles and methods from engineering and the physical sciences to solve problems in biology and medicine. Faculty in the Ira A. Fulton School of Engineering offer the Bachelor of Science in Engineering (BSE) degree in bioengineering. Undergraduate students may choose one of eight areas of emphasis: biochemical, bioelectrical, biomaterials, biomechanical, imaging, biosystems, molecular and cellular engineering, and premedical engineering. All seniors complete a two-semester capstone design experience, in which they plan and create an independent medical system or medical/biotechnology device project. The capstone design course is taught in the department's new, state-of-the-art design studio.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Biomedical engineers are employed in industry, hospitals, research facilities affiliated with educational and medical institutions, teaching 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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Chemical Engineering (BSE) ESCHEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://che.fulton.asu.edu> | <http://che.fulton.asu.edu/contact> | ECG 202 | 480/965-3313

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 faculty in the Fulton School of Engineering offer the Bachelor of Science in Engineering degree in Chemical Engineering. 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.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Civil Engineering (BSE) ESCEEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://cee.fulton.asu.edu> | cee@asu.edu | ECG 252 | 480/965-3589

Program Description: The civil engineering profession involves the analysis, planning, design, construction and maintenance of many types of facilities 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 School of Engineering offer the Bachelor of Science in Engineering (BSE) 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: ASU graduates with a BSE degree 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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Civil Engineering (Construction Engineering) (BSE) ESCEECBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://cee.fulton.asu.edu> | cee@asu.edu | ECG 252 | 480/965-3589

Program Description: Civil engineering is primarily concerned with the public domain. Faculty in the Ira A. Fulton School of Engineering offer the Bachelor of Science in Engineering (BSE) degree in Civil Engineering with a concentration in construction engineering. 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: ASU graduates with the BSE degree 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 many and are likely to expand.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Civil Engineering (Environmental Engineering) (BSE) ESCEEEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://cee.fulton.asu.edu> | cee@asu.edu | ECG 252 | 480/965-3589 |

Program Description: Environmental engineering is a multidisciplinary field based on traditional civil engineering principles; and 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, and surface water quality management.

Language Requirement: N | *Program Fee:* N

Career Opportunities: University graduates with the B.S.E. Degree in Civil Engineering and an Environmental Engineering concentration 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 great and are likely to expand.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Computer Science (BS) ESCSEBS

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://sci.asu.edu/> | sci.advising@asu.edu | BYENG 553 | 480/965-3190

Program Description: The discipline of computer science is concerned with the design of computers, computational processes, and information transfer and transformation. Design of next generation computer systems, computer networking, biomedical information systems, gaming systems, search engines, web browsers and computerized package distribution systems are all examples of projects a computer scientist might work on. Computer scientists might also focus on improving software reliability, network security or information retrieval systems, or may even work as a consultant to a financial services company. Faculty in the Ira A. Fulton School of Engineering offer the Bachelor of Science (BS) degree in Computer Science. Students pursuing this degree may choose to concentrate their studies in software engineering or information assurance.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Because computer technology is embedded in so many products, services, and systems, computer scientists can be found in almost every industry. Although they are increasingly employed in every sector of the economy, the greatest concentration of computer scientists works in the computer systems design and related services industry. Firms in this industry provide services related to the commercial use of computers on a contract basis, including custom computer programming services; computer systems integration design services; computer facilities management services, including computer systems or data processing facilities support services for clients; and other computer-related services, such as disaster recovery services and software installation. Many computer scientists and database administrators are employed by Internet service providers; Web search portals; and data processing, hosting and related services firms. Others work for government, manufacturers of computer and electronic products, insurance companies, financial institutions and universities.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Computer Systems Engineering (BSE) ESCSEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://sci.asu.edu> | sci.advising@asu.edu | BYENG 553 | 480/965-3190

Program Description: The Computer Systems Engineering program is concerned with the analysis, design and evaluation of computer systems, both hardware and software. The program emphasizes computer organization and architecture, systems programming, operating systems and digital hardware design. 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 design, planning, development, testing, and even the supervision of manufacturing of computer hardware -- including everything from chips to device controllers. They also focus on computer networks for the transmission of data and multimedia. They work on the interface between different pieces of hardware and strive to provide new capabilities to existing and new systems or products. The work of a computer engineer is grounded in the hardware -- from circuits to architecture -- but also focuses on operating systems and software. Computer engineers must understand logic design, microprocessor system design, computer architecture and computer interfacing, and continually focus on system requirements and design. Faculty in the Ira A. Fulton School of Engineering offer the Bachelor of Science in Engineering (BSE) degree in Computer Systems Engineering.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Computer engineers are employed in industry, government, education and consulting. They usually work in teams with other engineers and individuals from other functional areas. They may be working on a new design of an electronic component for an individual project, focused on the development of software specific to a new product or one being redesigned, or may work in sales or in supporting research activities. Computer engineers frequently work on new applications of computers, such as advances in digital television and photography, virtual meeting technology, intelligent highways and control systems and new technologies for cars, phones, security systems, telescopes, airplanes and space vehicles.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Construction (Concrete Industry Management) (BS) ESCONIMBS

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://construction.asu.edu/cim> | dewsc@asu.edu | USE 138 | 48096553615

Program Description: The Del E. Webb School of Construction offers the Bachelor of Science degree in Construction with a concentration in concrete industry management (CIM). CIM 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The CIM 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. CIM career opportunities include field sales, operations, project and production management; technical service; concrete production; cement, admix, or equipment manufacturing; concrete or general contracting; and development.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Construction (General Building Construction) (BS) ESCONGBS

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://construction.asu.edu> | dewsc@asu.edu | USE 138 | 48096553615

Program Description: Through the BS in Construction degree 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 in the nation.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The general building 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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**

- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Construction (Heavy Construction) (BS) ESCONHBS

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://construction.asu.edu> | dewsc@asu.edu | USE 138 | 48096553615

Program Description: Through the BS in Construction degree program (with a concentration in heavy 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 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 in the nation.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Construction (Residential Construction) (BS) ESCONRBS

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://construction.asu.edu> | dewsc@asu.edu | USE 138 | 48096553615

Program Description: Through the BS in Construction degree 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 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 in the nation. This option covers the specific methods and processes during the planning, production, marketing, and business related activities common to residential construction.

Language Requirement: N | *Program Fee:* N

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 an executive level.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Construction (Specialty Construction) (BS) ESCONSBS

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://construction.asu.edu> | dewsc@asu.edu | USE 138 | 480/965-3615

Program Description: Through the BS in Construction degree program (with a concentration in specialty 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. This concentration program emphasizes the construction process at the subcontractor level. 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 in the nation.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The specialty construction concentration prepares students for careers with contractors- such as mechanical and electrical construction firms.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Electrical Engineering (BSE) ESEEEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://ee.fulton.asu.edu> | eeinfo@asu.edu | ERC 552 | 480/965-3424

Program Description: The goal of the electrical engineering undergraduate program is to prepare graduates for entry-level positions as electrical engineers. Faculty in the Ira A. Fulton School of Engineering offer a Bachelor of Science in Engineering (BSE) degree in Electrical Engineering. Following initial course work in mathematics and sciences, the engineering core classes build a solid base of engineering knowledge. Beyond the engineering core, the electrical engineering curriculum includes a number of required 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 interests.

Language Requirement: N | Program Fee: N

Career Opportunities: Graduates with the BSE in Electrical Engineering find many exciting opportunities in industry. These range from 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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Electrical Engineering (Electric Power and Energy Systems) (BSE) ESEEEP/BSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://ee.fulton.asu.edu> | eeinfo@asu.edu | ERC 552 | 480/965-3424

Program Description: The goal of the electric power and energy systems concentration (EPES) is to prepare the graduates for entry-level positions in industries dealing with conventional power generation (fossil fuel and nuclear) and alternative energy systems, including solar, wind and fuel cells. Employment opportunities range from utility companies to power equipment manufacturers, consulting firms, research and design organizations. This concentration will also prepare students to pursue graduate degrees in the areas of power systems, power generation and renewable and sustainable energy sources.

Language Requirement: N | Program Fee: N

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 and municipal agencies, research and design organizations as well as entrepreneurial opportunities.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when

applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Engineering Special Studies (Premedical Engineering) (BSE) ESESPPBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://hdbe.fulton.asu.edu> | <http://hdbe.fulton.asu.edu/contact> | ECG 334 | 480/965-3028

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 men and women with a knowledge of computer technology, transport phenomena, biomechanics, bioelectric phenomena, operations research and cybernetics. The Bachelor of Science in Engineering degree in Engineering Special Studies with a concentration in premedical engineering is designed to meet the needs of this growing profession.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Industrial Engineering (BSE) ESIEEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://ie.fulton.asu.edu> | ie@asu.edu | GWC 502 | 480/965-3185

Program Description: Industrial Engineers design and manage complex systems in the manufacturing and service industries through the integration of people, material, information, capital, energy and equipment. The faculty in the Ira A. Fulton School of Engineering offer the Bachelor of Science in Engineering degree in Industrial engineering. Industrial engineering (IE) applies systems modeling and analysis skills to ensure high quality products and services are achieved with the optimal use of resources. IE focuses on the total picture of developing, producing, delivering, and servicing products and services to satisfy customers. 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 IE broad knowledge of an organization and provides increased opportunities for advancement into management and leadership.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Materials Science and Engineering (BSE) ESMSEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://som.asu.edu/> | som@asu.edu | ECG 303 | 480/727-9311

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 School of Engineering offer the Bachelor of Science in Engineering degree 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Materials engineers are in demand in a wide range of industries, including the automotive, aerospace, electronics, semiconductor, computer and healthcare 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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**

- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Mechanical Engineering (BSE) ESMAEMBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://mae.fulton.asu.edu> | mae@asu.edu | ECG 346 | 480/965-3291 |

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. The objectives of the Mechanical Engineering program at ASU are: 1) (Career Preparation) Provide the depth and breadth of engineering education that prepares graduates for employment in the mechanical engineering profession; admission to graduate programs in mechanical engineering or a related field; or the pursuit of advanced education in other professional areas, such as business, law or medicine. 2) (Technical Competence) Provide graduates with the technical skills for career success, including the ability to think in a critical and evaluative manner and to consider a broad perspective in order to solve technical and nontechnical problems. 3) (Professionalism) Prepare graduates with the professional skills for career success, including an awareness of ethical responsibility and the ability to communicate well and work successfully within diverse groups. The Mechanical Engineering programs at ASU are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410/347-7700.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**

- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Mechanical Engineering (Computational and Mathematical Mechanics) (BSE) ESMAECBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Program Description: As mathematical and numerical modeling takes on a much larger role in product development, graduates who are highly skilled in computational and mathematical engineering will be in high demand. The concentration in computational and mathematical mechanics, under the BSE in Mechanical Engineering degree program, 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. The objectives of the Mechanical Engineering program at ASU are: 1. Career preparation--provide the depth and breadth of engineering education that prepares graduates for employment in the mechanical engineering profession; admission to graduate programs in mechanical engineering or a related field; or the pursuit of advanced education in other professional areas, such as business, law or medicine. 2. Technical competence--provide graduates with the technical skills for career success, including the ability to think in a critical and evaluative manner and to consider a broad perspective in order to solve technical and nontechnical problems. 3. Professionalism--prepare graduates with the professional skills for career success, including an awareness of ethical responsibility and the ability to communicate well and work successfully within diverse groups. The Mechanical Engineering programs at ASU are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410/347-7700.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**
- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

Mechanical Engineering (Energy and Environment) (BSE) ESMAEEBSE

IRA A. FULTON SCHOOL OF ENGINEERING, TEMPE

Contact: <http://mae.fulton.asu.edu> | mae@asu.edu | ECG 346 | 480/965-3291

Program Description: The concentration in energy and environment, under the Bachelor of Science in Engineering (BSE) degree program, 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.

The objectives of the Mechanical Engineering program at ASU are: 1) (Career Preparation) Provide the depth and breadth of engineering education that prepares graduates for employment in the mechanical engineering profession; admission to graduate programs in mechanical engineering or a related field; or the pursuit of advanced education in other professional areas, such as business, law or medicine. 2) (Technical Competence) Provide graduates with the technical skills for career success, including the ability to think in a critical and evaluative manner and to consider a broad perspective in order to solve technical and nontechnical problems. 3) (Professionalism) Prepare graduates with the professional skills for career success, including an awareness of ethical responsibility and the ability to communicate well and work successfully within diverse groups. The Mechanical Engineering programs at ASU are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410/347-7700.

Language Requirement: N | *Program Fee:* N

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 HVAC engineers.

Additional Admissions Requirements: The admission requirements for majors in the Ira A. Fulton School of Engineering are higher than minimum university admission requirements. Students should select a second major choice outside Engineering when applying for admission. Students who are not eligible for admission to Engineering and who do not indicate a second major choice will be placed in exploratory mathematics, physical sciences, engineering and technology within University College.

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:

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score; **or** 3.00 minimum ABOR GPA; **or** class ranking in top 25 percent of high school class, **and**
- no high school math or science competency deficiencies.

Transfer students with fewer than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for less than 24 transfer hours, **and**
- no high school math or science competency deficiencies, **and**

- minimum 1140 SAT combined math and verbal or minimum 24 ACT combined score, **or** 3.00 minimum ABOR GPA, **or** class ranking in top 25 percent of high school class.

Transfer students with more than 24 transferable college credit hours:

- minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
- no high school math or science competency deficiencies (if Undergraduate Admissions requires submission of a high school transcript).

HONORS – BARRETT, THE HONORS COLLEGE

Honors College

BARRETT, THE HONORS COLLEGE, TEMPE

Contact: <http://honors.asu.edu/> | Irish A 121 | 480/965-4033

Program Description: Barrett, The Honors College at Arizona State University is a selective, residential college that recruits academically outstanding undergraduates across the nation. Named "Best Honors College" in the nation, this residential community has more National Merit Scholars than Princeton, Yale or Stanford, and Barrett students benefit from a \$10 million endowment used exclusively to support honors students and their projects.

Barrett students 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. All Barrett students are also enrolled in a disciplinary college and pursue one or more of the 250 available majors and concentrations. Their education is the result of the collaborative efforts of the Barrett's directly appointed faculty and of faculty appointed in the college of their major.

Barrett accepts high performing, academically engaged students and works with them in collaboration with all of the units at ASU to contribute to student success. Most students enter as freshmen but about 90 each year enter after one or more semesters at a university or college (primarily from ASU).

Special Opportunities:

- **Lorraine W. Frank Office of National Scholarship Advisement:** This office assists students in identifying nationally competitive scholarship programs appropriate to each individual's intellectual and career goals. Lorraine W. Frank Office of National Scholarship Advisement (http://honors.asu.edu/w-National_Scholarships-53.aspx)
- **Undergraduate Research Opportunities:** Barrett encourages students to participate in undergraduate research throughout the university. The college maintains a list of current opportunities university wide. Undergraduate Research Opportunities (http://honors.asu.edu/w-Research_Opportunities-51.aspx)
- **Travel:** Barrett study abroad programs, directed and taught by Barrett faculty, occur during the summer and allow students to earn honors credit. Students can also take advantage of the Great American Cities program and visit cities throughout the U.S. Travel (http://honors.asu.edu/w-Travel_Abroad-52.aspx)
- **Internships:** Students in Barrett participate in special internship opportunities - in government, industry, and the private sector - throughout metropolitan Phoenix and elsewhere. Internships (<http://honors.asu.edu/w-Internships-50.aspx>)
- **Events/Programming:** Students enrolled in Barrett benefit from preeminent guest speakers, special lectures, and visits from some of the nation's greatest contributors to contemporary thought in society. The college hosts two of the university's premier scholar-in-residence programs, the Centennial Lecture and the John J. Rhodes Chair.

Barrett Honors Requirements Overview

Students complete 36 hours of honors credits within the 120 hours required to earn a bachelor's degree by completing HON courses, honors-only courses in other ASU units, special class projects with faculty in other ASU units, internships, undergraduate research and summer study abroad.

To graduate from Barrett, students must complete the required honors courses with a minimum grade of "C," defend a thesis/creative project and have a cumulative GPA of 3.25.

All students entering Barrett:

- with < 60 credits completed at a university/college after high school graduation:
 - must complete HON171 and HON272/273 (The Human Event) by the time they reach 45 credits at ASU,
 - must complete 36 honors credits, of which at least 18 must be upper division,
 - and may have up to 30 of the 36 honors credits as upper division courses.
- with > 60 credits completed at a university/college after high school graduation:
 - must complete 21 upper division honors credits, one an HON 300-level seminar.

Language Requirement: N | Program Fee: Y

Additional Admissions 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 their high school GPA (Arizona Board of Regents GPA based on 16 competency courses), high school class rank, and performance on the SAT or ACT; as well as talents that contribute to leadership and community service. Continuing ASU or transfer students are evaluated on their college GPA. For more admission information, please visit the Honors Application (<http://honors.asu.edu/w-Apply-40.aspx>) Web page.

JOURNALISM AND MASS COMMUNICATION, WALTER CRONKITE SCHOOL OF

Journalism and Mass Communication (BA) CSJMCBA

WALTER CRONKITE SCHOOL OF JOURNALISM AND MASS COMMUNICATION, DTPHX

Contact: cronkiteadvising@asu.edu

Program Description: The Cronkite School, 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/online journalism, broadcast journalism, or strategic media/public relations, leading to a Bachelor of Arts degree in Journalism and Mass Communication. In fall 2008, the Cronkite School will move to a new building at the Downtown Phoenix campus in the heart of the 13th largest media market in the United States. The school will feature state-of-the-art computer labs, editing suites, production studios, and classrooms dedicated to journalism education.

Language Requirement: Y | Program Fee: Y

Career Opportunities: Walter Cronkite School of Journalism and Mass Communication graduates work for newspapers, radio and TV stations, online services, magazines, public relations firms, and corporate communication divisions. Positions include reporters, editors, photojournalists, writers, and media managers.

Additional Admissions Requirements: The Bachelor of Arts in Journalism and Mass Communication degree program has higher admission requirements. Students should select a second major on the application. Students who are not admitted to the Cronkite School and who did not select a second major, or are not admissible to the second major, are admitted to Exploratory Social and Behavioral Sciences within University College.

Freshman applicants must meet the following standards:

- Have a 3.00 (4.00 = A) ABOR GPA;

- Have no English competency deficiencies; and
- Meet one of the following two requirements, top 25 percent of high school class, or 1040 SAT Reasoning or 22 ACT score.

Transfer students (with 12 or more transfer hours after high school graduation) are required to have a cumulative transfer GPA of 3.25 or higher and no English competency deficiencies. Transfers should contact the school for additional steps after admission to ASU. Students should select a second major on the application. For more information regarding transfer admission, see http://cronkite.asu.edu/undergrad/xfer_major_change.php.

LETTERS AND SCIENCES, SCHOOL OF

Interdisciplinary Studies (BIS) LSBISBIS

SCHOOL OF LETTERS AND SCIENCES, DTPHX

Contact: <http://sls.asu.edu/bis/index.html> | bis@asu.edu | USAB 203 | 480/965-1970

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. Through the ASU BIS program, majors may choose and combine two of nearly 100 concentration areas or one double concentration that represents academic interests they wish to integrate. 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.

Degree completion students may also choose to apply to the BIS in Organizational Studies online program. For more information visit <http://asuonline.asu.edu/programs/> or email orgstudies@asu.edu.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Because of the flexibility of the BIS degree, BIS 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.

Additional Admissions Requirements: The BIS degree is available to all students in good academic standing. Students must complete the online BIS Cyber Workshop (found online at <http://sls.asu.edu/bis/>) prior to meeting with an advisor to declare their major as Interdisciplinary Studies. Specific prerequisites must be met prior to enrolling in any of the BIS core classes. These prerequisites are:

- junior standing (56 or more credits earned),
- ASU GPA of 2.00 or higher,
- the completion of two courses in both of their chosen academic disciplines with grades of "C" or better, and
- the completion of the university requirement for English composition and mathematics.

Interdisciplinary Studies (Organizational Studies) (BIS) LSORGBIS

SCHOOL OF LETTERS AND SCIENCES, ONLNE

Contact: School of Letters and Sciences

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. Through ASU's BIS program, majors may choose and combine two of nearly 100 concentration areas or one double concentration that represent academic interests they wish to integrate. 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Because of the flexibility of the BIS degree, BIS 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, 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.

LIBERAL ARTS AND SCIENCES, COLLEGE OF

African and African American Studies (BA) LAAFRBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: African and African American Studies (AAAS) is an interdisciplinary Bachelor of Arts 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 (a) prepare students of all ethnicities to better understand, value and more effectively participate in our increasingly diverse society, (b) combine knowledge of the African diaspora with intellectual and practical training in specific areas to create more effective communities and global partnerships, and (c) 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.

Language Requirement: Y | *Program Fee:* N

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.

American Indian Studies (BS) LAAISBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Bachelor of Science program in American Indian Studies (AIS) provides students with unique opportunities to evaluate issues of American Indian nations within a domestic and international context. The Bachelor of Science in AIS 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: AIS 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. Graduates of AIS 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.

Anthropology (BA) LAASBBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://shesc.asu.edu/node/252> | shesc@asu.edu | Anthropology 233 | 480/965-6213

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 what it means to be human in past, present and future environments. A special feature of the ASU anthropology program is its relevance to other disciplines, including economics, sociology, biology, public health, psychology, medicine, law, community planning, architecture, religious studies, fine arts, area or cultural group studies, global studies and applied mathematics. 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; and appreciating the languages and cultures of such diverse areas as Southeast Asia, the South Pacific, Latin America, and the Mediterranean Basin; and many other topics that explore humans of the past and present.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: 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; and directing nonprofit organizations.

Asian Languages - Chinese (BA) LACHIBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/languages/chi/chinese.html> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: Students in the Bachelor of Arts program in Asian Languages with a concentration in Chinese study the language, literature and culture of China. They gain a respectable measure of competence in reading, writing, and oral/aural skills in the Chinese language. Throughout the program, students take courses in either Japanese or Korean and related courses in Chinese and East Asian culture on topics such as Chinese history, art, religion, government, literary and cultural theory, and linguistics. In addition, ASU has a summer overseas program to study Chinese.

Language Requirement: Y | *Program Fee:* N

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 United States or China. Other graduates work for government agencies or teach (usually English) in China. Some pursue graduate work in Chinese studies, eventually teaching the language and/or culture in universities or colleges.

Asian Languages - Japanese (BA) LAJPNBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/languages/jpn/japanese.html> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: Students in the Bachelor of Arts program in Asian Languages with a concentration in Japanese 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.

Language Requirement: Y | Program Fee: N

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.

Biochemistry (BA) LABCHBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Bachelor of Arts 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.

Language Requirement: Y | Program Fee: N

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.

Biochemistry (BS) LABCHBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Bachelor of Science 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.

Language Requirement: N | Program Fee: N

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.

Biochemistry (Medicinal Chemistry) (BS) LABCHMBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The science of biochemistry is about the discovery and dissemination of fundamental knowledge of the chemical substances and vital processes of living organisms. Discoveries of new drugs, the recognition and control of new pathogens, development of new catalysts for energy transformations and the production of new materials, and solutions to problems such as food production and environmental remediation depend upon a thorough grounding in this area of science. The Bachelor of Science in Biochemistry with a concentration in medicinal chemistry emphasizes aspects of biochemistry that will be useful to those planning careers in medically-related areas.

Language Requirement: N | Program Fee: N

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.

Biological Sciences (BS) LABSCBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/ugrad/uadvising.php> | sols.advising@asu.edu | LSC 206 | 480/727-6277

Program Description: The Bachelor of Science 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.

Language Requirement: N | *Program Fee:* N

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.

Are you exploring becoming a middle/high school teacher? Concurrent degrees in Biological Sciences (BS) and Education (BAE) (http://www.asu.edu/programs/concurrentdegrees/BAE_BS_BioSciences.html) are available.

Biological Sciences (Animal Physiology and Behavior) (BS) LABSCABS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/ugrad/uadvising.php> | sols.advising@asu.edu | LSC 206 | 480/727-6277

Program Description: The animal physiology and behavior concentration in the Bachelor of Science in Biological Sciences program 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.

Language Requirement: N | *Program Fee:* N

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.

Biological Sciences (Biology and Society) (BS) LABSCSBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/ugrad/uadvising.php> | sols.advising@asu.edu | LSC 206 | sols.advising@asu.edu

Program Description: The biology and society concentration in the Bachelor of Science in Biological Sciences program 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.

Language Requirement: N | *Program Fee:* N

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.

Biological Sciences (Conservation Biology and Ecological Sustainability) (BS) LABSCCBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/ugrad/uadvising.php> | sols.advising@asu.edu | LSC 206 | 480/727-6277

Program Description: The conservation biology and ecological sustainability concentration in the Bachelor of Science in Biological Sciences program 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 population biology, behavioral ecology, climate change, urban ecology, conservation of endangered species and social and historical aspects of conservation.

Language Requirement: N | *Program Fee:* N

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 or certain technical fields.

Biological Sciences (Ecology and Evolution) (BS) LABSCEBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The ecology and evolution concentration in the Bachelor of Science in Biological Sciences program provides training in the ecology, evolution and behavior of organisms, the diversity and systematic relationships among species and change in these relationships through time, and 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.

Language Requirement: N | *Program Fee:* N

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 government, education, industry or certain technical fields.

Biological Sciences (Genetics, Cell and Developmental Biology) (BS) LABSCGBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/ugrad/uadvising.php> | sols.advising@asu.edu | LSC 206 | 480/727-6277

Program Description: The genetics, cell and developmental biology concentration in the Bachelor of Science in Biological Sciences program 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.

Language Requirement: N | *Program Fee:* N

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 government, education, industry or certain technical fields.

Biological Sciences (Genomics and Bioinformatics) (BS) LABSCBBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/ugrad/uadvising.php> | sols.advising@asu.edu | LSC 206 | 480/727-6277

Program Description: The genomics and bioinformatics concentration in the Bachelor of Science in Biological Sciences program 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.

Language Requirement: N | Program Fee: N

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.

Biological Sciences (Plant Biology) (BS) LABSCPBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/ugrad/uadvising.php> | sols.advising@asu.edu | LSC 206 | 480/727-6277

Program Description: The plant biology concentration in the Bachelor of Science in Biological Sciences program provides breadth for students interested in all aspects of plant biology, from traditional areas such as anatomy, morphology, systematics, evolution, ecology and physiology to cellular, developmental and molecular plant biology. 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.

Language Requirement: N | Program Fee: N

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 government, education, industry or certain technical fields.

Chemistry (BA) LACHMBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Chemistry is a central science field 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 are based on a thorough grounding in this area of science. Students in the Bachelor of Arts program in Chemistry 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. in Education with a specialization in Chemistry is also available.

Language Requirement: Y | Program Fee: N

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.

Chemistry (BS) LACHMBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Chemistry is a central science that connects the "hard sciences," including physics, with the "soft sciences," such as biology and medicine and provides fundamental knowledge needed to deal with many needs of society. Discoveries of new materials, processes and solutions to problems such as pollution control depend upon a thorough grounding in this area of science. Students in the Bachelor of Science program in Chemistry 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. in Education with a specialization in Chemistry is also available.

Language Requirement: N | Program Fee: N

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.

Are you exploring becoming a middle/high school teacher? Concurrent degrees in Biological Sciences (BS) and Education (BAE) (http://www.asu.edu/programs/concurrentdegrees/BAE_BS_BioSciences.html) are available.

Chemistry (Environmental Chemistry) (BS) LACHMEBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Chemistry is a central science that connects the "hard sciences," including physics, with the "soft sciences," such as biology and medicine and provides fundamental knowledge needed to deal with many needs of society. Discoveries of new materials, processes and solutions to problems such as pollution control depend upon a thorough grounding in this area of science. Students in the Bachelor of Science program in Chemistry 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.

Language Requirement: N | *Program Fee:* N

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.

Communication (BA) LACOMBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://asu.edu/clas/communication/undergraduate/> | communication@asu.edu | STAUF(A) 412 | 480/965-5095

Program Description: The Bachelor of Arts 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."

Language Requirement: Y | *Program Fee:* N

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 sales, marketing, counseling, event planning, human resource management, nonprofit management, health care management, entrepreneurship, intercultural relations, campaign management, and public relations.

Communication (BS) LACOMBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: communication@asu.edu | 480/965-5095

Program Description: The Bachelor of Science program 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."

Language Requirement: N | *Program Fee:* N

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 sales, marketing, counseling, event planning, human resource management, nonprofit management, health care management, entrepreneurship, intercultural relations, campaign management, and public relations.

Computational Mathematical Sciences (BS) LACMSBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Mathematics is a crucial component in physics and engineering applications and in other disciplines such as business and economics, as well as in the life sciences and social sciences. The Bachelor of Science in Computational Mathematical Sciences is an interdisciplinary degree, with components in mathematics, science and computer science, 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry: engineering, biotech, computer, government (consultant, federal and state organizations), business (actuary for bank or insurance company, operations research), applied math (scientific computing), medicine, academia (high-school or college teacher, university professor), and graduate school (mathematics or other fields). A B.S. in Computational Math 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.

Earth and Space Exploration (BS) LASESBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Bachelor of Science 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.

Language Requirement: N | *Program Fee:* N

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.

Economics (BS) LAECNBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://wpcarey.asu.edu/ecn> | wpcareyecn@asu.edu | BAC 659 | 480/965-3531

Program Description: What are the best ways to design compensation schemes to attract and retain top workers while maintaining a firm's productivity? Is off-shoring good or bad for the economy, the worker or the company? Why do business cycles exist? What are the economic consequences of laws and regulations? How should environmental safeguards be designed to simultaneously reduce pollution and maintain production efficiency? How should healthcare be provided such that the quality of the system remains high and innovative while also increasing access to health services? Economics provides a powerful

platform analyzing and answering questions such as these and many others. (The department is in the W. P. Carey School of Business, which also offers this major, with different requirements.)

The undergraduate degree in Economics (BS) is one of the top majors for students entering law school, MBA programs, and graduate programs in economics and public policy. In addition, economics graduates are in high demand by consulting firms, corporations and both state and federal government positions. The reason for this is because the economics curriculum focuses on strong quantitative training to hone the student's critical thinking skills. The Economics Department is committed to providing students with an exceptional educational experience.

Our faculty have consistently received top teaching awards. Furthermore, the department is highly regarded in terms of research-- Professor Edward Prescott was awarded the 2004 Nobel Prize in economic sciences, and other faculty are members of the National Academy of Sciences and Fellows of the Econometrics Society. The economics faculty conducts scholarly research leading to publications in major economics journals and academic presentations around the world. Excellence in both teaching and research ensures that students receive the most current knowledge from acclaimed instructors.

Language Requirement: N | Program Fee: N

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 business of the firm; 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 PhD and MBA 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.

English (Creative Writing) (BA) LAENGCBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Bachelor of Arts in English in the College of Liberal Arts and Sciences at the Tempe campus 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, and 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. in Education with a specialization in English is also available.

Language Requirement: Y | Program Fee: N

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 publishing, journalism, Web content development, public relations, professional writing and editing, banking, teaching, law, medicine, and business.

English (Linguistics) (BA) LAENGNBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Bachelor of Arts in English in the College of Liberal Arts and Sciences at the Tempe campus offers concentrations in creative writing, linguistics or literature. Students in the linguistics concentration focus on 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, and 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 BA in Education with a specialization in English is also available.

Language Requirement: Y | Program Fee: N

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 publishing, journalism, Web content development, public relations, professional writing and editing, banking, teaching, law, medicine, and business.

English (Literature) (BA) LAENGTBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: | petie.roberts@asu.edu | LL 542 | 480/965-3535 |

Program Description: The Bachelor of Arts in English in the College of Liberal Arts and Sciences at the Tempe campus 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, and 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 BA in Education with a specialization in English is also available.

Language Requirement: Y | *Program Fee:* N

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 publishing, journalism, Web content development, public relations, professional writing and editing, banking, teaching, law, medicine, and business.

Family and Human Development (BS) LAFASBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, ONLNE

Contact: <http://www.asu.edu/clas/ssfd/> | ssfd@asu.edu | SS 144 | 480/965-6978 |

Program Description: The Bachelor of Science 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: As a liberal arts degree, the BS 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.

Film (Film and Media Studies) (BA) LAFMSBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://film.asu.edu> | filminfo@asu.edu | LL 641 | 480/965-6747 |

Program Description: The Bachelor of Arts 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 BA in Film in the College of Liberal Arts and Sciences complete a concentration in film and media studies, and students accepted into the BA 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.

Language Requirement: Y | *Program Fee:* N

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, development, marketing and regulation, to name just a few—as well as teachers, critics and leaders within media entertainment industries. 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.

French (BA) LAFREBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/silc/fre/> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: Students in the Bachelor of Arts program in French 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 French history, art, religion, government, international business, literary and cultural theory and linguistics. 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 during the summer and academic year.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Graduates have a variety of career opportunities in firms that deal with international trade, U.S. companies that have branches in France, with 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.

Geography (BA) LAGCUBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://geography.asu.edu> | shaeffer@asu.edu | SCOB 330 | 480/965-7533

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 Bachelor of Arts 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.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Bachelor of Arts geographers go on to careers as public sector transportation planners, geodemographic analysts, urban and regional planners, community developers, teachers, international trade consultants, and intelligence analysts, as well as work in the foreign service and a host of governmental and non-governmental organizations.

Geography (BS) LAGCUBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Geographers have a unique spatial perspective in understanding the modern world, global to local, through the twin lenses of space and place. A Bachelor of Science 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: With a focus on geospatial techniques, Bachelor of Science geographers go on to careers as cartographers, Geographic Information System (GIS) specialists and analysts, remote sensing analysts, hydrology and water resource specialists, environment impact analysts, geospatial software developers, computer cartographers, and location analysts for businesses, and

are presented with a host of other geospatial career options in the burgeoning fields of Geographic Information Science (GISci), mapping and navigation systems.

Geography (Meteorology-Climatology) (BS) LAGCUMBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://geography.asu.edu> | shaeffer@asu.edu or cerveney@asu.edu | SCOB 330 | 480/965-7533

Program Description: The meteorology-climatology concentration under the Bachelor of Science 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 mathematics (requiring three semesters of calculus), physics (two semesters of university or calculus-based physics) and a sequence of classes in synoptic (operational weather forecasting) meteorology and dynamic (atmospheric physics) meteorology.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Students successfully completing the program have found employment with the National Weather Service and other government agencies (e.g., Arizona Department of Environmental Quality, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers), energy power companies (e.g., Salt River Project and Arizona Public Service), and the U.S. Air Force (in either meteorology or pilot training), or have gone on to graduate work in either meteorology or climatology.

Geography (Urban Studies) (BS) LAGCUUBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The urban studies concentration under the Bachelor of Science 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.

Language Requirement: N | *Program Fee:* N

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.

Geological Sciences (BS) LAGLGBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Geological science is the study of the Earth and other planets and the processes that have shaped them since the origin of the solar system. Volcanoes, earthquakes, groundwater, petroleum and ore deposits, exploration of the sea floor, the history of the Earth and planets, plate tectonics, mountain building, and fossils are all topics covered in geological science. A BS in Geological Sciences from ASU provides students with a solid background, drawing upon the fields of chemistry, mathematics and physics. Students gain a strong understanding of field methods as well as modern computing, remote sensing and instrumentation. The modern geological scientist uses computers, satellites and high tech instrumentation, as well as field mapping and exploration to understand the natural environment and Earth's resources.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Geological scientists are employed in jobs that range from the preservation of the environment to the discovery of natural resources on Earth and the exploration of the solar system and beyond. They work to understand the effects of natural and human processes on Earth. Careers in geological science usually involve a combination of field work, lab and computer analysis, and writing. Many geologists work in private industry in the environmental, mining and energy fields. Others hold jobs in public agencies or universities, working on natural hazards, resources, research, and informing the public. Work

environments can vary widely, relating to such diverse settings as the deep ocean floor and the moon and planets. Geologists have the skills and knowledge to address major issues of global importance.

German (BA) LAGERBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/silc/ger/> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: Students in the Bachelor of Arts program in German study the language, literature and culture of Germany. 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 German history, art, religion, government, and international business. Students are encouraged to study abroad in Germany as participants in ASU's summer program in Regensburg, or on one of the academic-year exchange programs available at several German universities.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Graduates have a variety of career opportunities in firms that deal with international trade, U.S. companies that have branches in Germany, with airlines, and in other fields. Some decide to pursue graduate work, eventually teaching the language and culture in universities or colleges. With state certification, high school teaching is also a possibility.

Global Health (BA) LASSHBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://shesc.asu.edu/node/252> | shesc@asu.edu | SHESC 233 | 480/965-6215

Program Description: The BA 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.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Nationally and internationally, the health field provides enormous and varied career opportunities, and demands for graduates with skills is high and only growing. The major would support the goals of those who plan to pursue careers in academic research and 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), NGOs, 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 Public Health, Anthropology, Evolutionary Biology, Infectious Diseases, Genetics, Applied Mathematics, Geography, Sociology, Sustainability, Environmental Studies, Demography or Biology.

Additional Admissions Requirements: Available for students applying Fall 2008

Global Studies (BA) LASGSBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

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 Bachelor of Arts 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 development; environment; global governance; urban systems; or violence, conflict, and human rights. The program is organized around key current research and teaching themes. The school's faculty as well as affiliated faculty from throughout the university offer courses.

Language Requirement: Y | *Program Fee:* N

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.

History (BA) LAHISBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Students in the Bachelor of Arts program in History 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 United States, Asia, Latin America, Africa, and the Middle East, and courses are designed to give students both breadth and depth in understanding today's complex world.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: History majors seek jobs in education, government, business and industry, and pursue graduate study in history, law, theology, medicine, business, public administration, justice studies, and public history. History is an excellent preprofessional major for law, theology, medicine, business, public administration, justice studies, and for graduate academic work in public history. 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.

Integrated Studies (BA) LAISTBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Integrated Studies program is not a General Studies major, but a unique and highly focused plan of study for gifted students whose academic interests are not served by the more traditional disciplinary studies. Superior students whose interests lie beyond the traditional departmental emphases have the opportunity to work with various faculty members in creating an individualized Bachelor of Arts degree 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.

Language Requirement: Y | *Program Fee:* N

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.

Additional Admissions Requirements: This major is not open for incoming students. It is open only to students who have completed 32 hours at ASU with a minimum cumulative GPA of 3.35.

Integrated Studies (BS) LAISTBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Integrated Studies program is not a General Studies major, but a unique and highly focused plan of study for gifted students whose academic interests are not served by the more traditional disciplinary studies. Superior students whose interests lie beyond the traditional departmental emphases have the opportunity to work with various faculty members in creating an individualized Bachelor of Science degree 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.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions Requirements: This major is not open for incoming students. It is open only to students who have completed 32 hours at ASU with a minimum cumulative GPA of 3.35.

International Letters and Cultures (BA) LASLCBA

LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/silc/> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: The Bachelor of Arts in International Letters and Cultures is a degree grounded in the study of at least one foreign language. It is a more intercultural and interdisciplinary 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).

Language Requirement: Y | *Program Fee:* N

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.

Italian (BA) LAITABA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/silc/ita/> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: Students in the Bachelor of Arts program in Italian 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 Italian history, art, religion, and government. 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.

Language Requirement: Y | *Program Fee:* N

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.

Justice Studies (BS) LAJUSBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: justiceinfo@asu.edu | WILSN 228 | 480/965-7682

Program Description: The School of Justice and Social Inquiry is an innovative social science program that places social justice at the center of its scholarship and teaching. The Bachelor of Science degree program 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; and 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.

Language Requirement: N | *Program Fee:* N

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.

Kinesiology (BS) LAKINBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/kines> | kineswebmaster@asu.edu | PEBW 218 | 480/965-3875

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, and physical and social sciences. Undergraduate students in the program gain disciplinary knowledge of anatomical, biomechanical, developmental, physiological, psychological and sociological aspects of human movement and physical activity. The department's graduate programs, at both the master's and doctoral levels, are highly regarded nationally and internationally and have a strong interdisciplinary emphasis.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Kinesiology graduates have a wide range of career options in health professions, the fitness industry, and the sports industry. Some typical job paths include: physical/occupational therapy, medicine, dentistry, pharmacy, cardiac rehabilitation, pharmaceutical sales and exercise equipment manufacturing.

Liberal Studies (BLS) LABLSBLS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://clas.asu.edu/liberalstudies/> | BLSAdvising@asu.edu | FNDN 245 | 480/965-3819

Program Description: The Bachelor of Liberal Studies (BLS) is an online degree-completion program for students who have already completed 60 or more semester hours toward an undergraduate degree. Students can complete their program from anywhere in the world, as long as a computer with Internet access is nearby. The BLS degree is an excellent choice for working adults and can sometimes be completed in as little as one year. Students in the BLS program are able to design their own transdisciplinary major based on their personal interests. For more information on eligibility requirements, call the Office of Student and Academic Programs at 480/965-3819.

Language Requirement: Y | *Program Fee:* N

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.

Additional Admissions Requirements: This program is not available for freshmen. Eligible students must have completed at least 60 credit hours at an accredited school AND must not have received credit for classes at a public four year Arizona university during the previous semester.

Mathematics (BA) LAMATBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Mathematics is a crucial component in physics and engineering applications, as well as other disciplines such as business and economics, the life sciences and social sciences where the need for quantification in the analysis of phenomena is just as strong. The Bachelor of Arts 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 requirements are not as technical or advanced as in the BS program. The BA program also has a foreign language requirement. A Secondary Education BA in Education with a specialization in Mathematics is also available.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry: engineering, biotech, computer, government (consultant, federal and state organizations), business (actuary for bank or insurance company, operations research), applied math (scientific computing), medicine, academia (high-school or college teacher, university professor), and graduate school (mathematics or other fields). Graduates with a BA in Mathematics may pursue a master's degree in a more applied field (social sciences) or an MBA 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.

Mathematics (BS) LAMATBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Mathematics is a crucial component in physics and engineering applications as well as other disciplines such as business and economics, and the life sciences and social sciences where the need for quantification in the analysis of phenomena is just as strong. The Bachelor of Science degree includes more analytical courses, as well as additional advanced courses compared to the Bachelor of Arts degree. It is the most popular math degree at ASU. Many BS majors are dual majors in a more applied field, such as physics and engineering.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry: engineering, biotech, computer, government (consultant, federal and state organizations), business (actuary for bank or insurance company, operations research), applied math (scientific computing), medicine, academia (high-school or college teacher, university professor), and graduate school (mathematics or other fields). 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.

Are you exploring becoming a middle/high school teacher? Concurrent degrees in Biological Sciences (BS) and Education (BAE) (http://www.asu.edu/programs/concurrentdegrees/BAE_BS_BioSciences.html) are available.

Mathematics (Statistics) (BS) LAMATTBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Mathematics is a crucial component in physics and engineering applications as well as in other disciplines such as business and economics, in the life sciences and social sciences where the need for quantification in the analysis of phenomena is just as strong. The Bachelor of Science in Mathematics with a concentration in statistics focuses on coursework 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 the model. Many Bachelor of Science students in the statistics concentration are dual Business or Economics majors.

Language Requirement: N | Program Fee: N

Career Opportunities: Employment opportunities for math majors can be found in virtually all sectors of industry: engineering, biotech, computer, government (consultant, federal and state organizations), business (actuary for bank or insurance company, operations research), applied math (scientific computing), medicine, academia (high-school or college teacher, university professor), and graduate school (mathematics or other fields). 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.

Microbiology (BS) LAMICBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Students in the Bachelor of Science program in Microbiology 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: medical and clinical microbiology, which concerns microbes that cause infectious diseases; virology; immunology, which involves the study of immune defense mechanisms; industrial microbiology and biotechnology; microbial fermentation, which involves growing microorganisms to make chemicals, antibiotics and other economically important products; food and pharmaceutical microbiology, including quality control; mycology, which is the study of fungi; soil and aquatic microbiology; biodegradation; microbial physiology and biochemistry; microbial genetics; recombinant DNA technology; and molecular biology.

Language Requirement: N | Program Fee: N

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 research and development, production and testing of microbial products and quality control, public health and environmental microbiology, education and clinical applications.

Molecular Biosciences/Biotechnology (BS) LAMBBBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://sols.asu.edu/mbb/index.php> | sols@asu.edu | LS E206 | 480/727-6277

Program Description: Students in the Bachelor of Science program in Molecular Biosciences and Biotechnology focus on learning the fundamentals of biochemistry, molecular genetics, cell biology, physiology, and organismal structure and function. 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.

Language Requirement: N | Program Fee: N

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.

Philosophy (BA) LAPHIBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: A Bachelor of Arts 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.”

Language Requirement: Y | *Program Fee:* N

Career Opportunities: The analytical, rhetorical, and writing skills developed through the study of philosophy provide ideal preparation for law, business, journalism, education, and a wide range of other career areas.

Physics (BS) LAPHYBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Physics is concerned with the nature, structure, and interactions of matter and radiation. Students in the Bachelor of Science program in Physics may pursue one of two options: The traditional "professional" Physics program, which is selected by a majority of our majors, particularly those who plan to pursue graduate work in physics, and an interdisciplinary physics program, which provides a strong physics core but also includes courses in a second “area of concentration,” such as materials science, applied mathematics, physical chemistry, geophysics, or astronomy. Students also have the option of building a program that combines physics with business, journalism, law, premedical or other areas. There is considerable flexibility in this program. The student and advisor can custom-design a curriculum to meet specific career goals.

Language Requirement: N | *Program Fee:* N

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, design and development, materials science, education and business.

Are you exploring becoming a middle/high school teacher? Concurrent degrees in Biological Sciences (BS) and Education (BAE) (http://www.asu.edu/programs/concurrentdegrees/BAE_BS_BioSciences.html) are available.

Political Science (BA) LAPOSBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, ONLNE

Contact: <http://asu.edu/clas/polisci> | COOR 6801 | 480/965-1262

Program Description: The Bachelor of Arts 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.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Many of our graduates have gone on to some of the country's most prestigious graduate programs and schools, including Duke, Harvard and Princeton. Graduating seniors have also found a range of employment opportunities in the fields of law, politics, education, journalism, communication, and 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 (e.g., Nike, Goodyear), state and local government, and the judiciary.

Political Science (BS) LAPOSBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: The Bachelor of Science 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 ideas.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Many of our graduates have gone on to some of the country's most prestigious graduate programs and schools, including Duke, Harvard and Princeton. Graduating seniors have also found a range of employment opportunities in the fields of law, politics, education, journalism, communication, and 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 (e.g., Nike, Goodyear), state and local government, and the judiciary.

Pre-Health/Pre-Med Professions (BNODEG) LAMEDPRE

COLLEGE OF LIBERAL ARTS AND SCIENCES, WEST

Contact: <http://prehealth.asu.edu/> | prehealth@asu.edu | FNDN 110 | 480/965-2365

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, music, engineering, economics and psychology, as well as in biology and chemistry. The CLAS Health Career Services Office provides ongoing academic career advising for pre-health students who wish to pursue a career in medicine, chemistry, physical therapy, podiatry, pharmacy, optometry, or other related fields.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Pre-Health Advising Office is devoted to helping students make important decisions about their futures and assisting them with the technical aspects of the application process for professional health programs. The very competitive nature of admission to these programs makes it essential for students to work closely with the office from the beginning of their studies at ASU.

Additional Admissions Requirements: Students must meet the admission requirements of the major to which they apply.

Pre-Law (BNODEG) LALAWPRE

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: clasundergrad@asu.edu | Office of Student and Academic Programs, FNDN 110 | 480/965-6506

Program Description: This program is designed for students interested in pursuing a legal career. 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 (see <http://prelaw.asu.edu/>).

Language Requirement: N | *Program Fee:* N

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.

Psychology (BA) LAPGSBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: PSY 237 | 480/965-3326

Program Description: Psychologists study behavior, emotions and mental processes. The BA degree in Psychology is designed to prepare students to work in a variety of settings that provide opportunities to apply concepts and principles of psychology. Students in the BA 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, BA 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.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: 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 in clinical, developmental, experimental, cognitive systems, behavior, behavioral neuroscience, or social psychology are required. Opportunities exist for professionals in applied mental health settings and in industry. This degree also leads to professional postgraduate programs in the fields of law and medicine.

Psychology (BS) LAPGSBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: PSY 237 | 480/965-3326

Program Description: Psychology is the study behavior, emotions and the mental processes of individuals and groups, approached through a scientific methodology. The BS degree in Psychology is designed to prepare students to pursue graduate work in psychology and related fields. Students in the BS 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, BS majors take advanced course work in statistics, and receive hands-on research experience by working with faculty members in the laboratory.

Language Requirement: N | *Program Fee:* N

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 in clinical, developmental, experimental, cognitive systems, behavior, behavioral neuroscience, or social psychology are required. Opportunities exist for professionals who complete advanced degrees in academic and clinical settings.

Religious Studies (BA) LARELBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Students in the Bachelor of Arts program in Religious Studies 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 at ASU 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.

Language Requirement: Y | *Program Fee:* N

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.

Russian (BA) LARUSBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/silc/slav/index.html> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: Students in the BA program in Russian 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 Russian literature, history, art,

religion, government, international business, linguistics, and literary and cultural theory. 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, and Polish 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.

Language Requirement: Y | Program Fee: N

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.

Sociology (BA) LASOCBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://asu.edu/ssfd> | ssfd@asu.edu | SS 144 | 480/965-6978

Program Description: Sociology is the study of social life, social change and the social causes and consequences of human behavior. The Bachelor of Arts 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.

Language Requirement: Y | Program Fee: N

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.

Spanish (BA) LASPABA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/silc/spa/> | silc@asu.edu | LL 440 | 480/965-6281

Program Description: Students in the BA program in Spanish 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). 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.

Language Requirement: Y | Program Fee: N

Career Opportunities: Graduates may choose from several career options. They may pursue college or university teaching and research in linguistics or literature through advanced degrees, become certified to teach high school, pursue translation or interpretation studies, or combine Spanish with other fields with an international emphasis, such as journalism, engineering, political science, and business.

Speech and Hearing Science (BS) LASHSBS

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Program Description: Students in the Bachelor of Science program in Speech and Hearing Science study the normal aspects of the communication process. Emphasis is placed on speech, language and hearing science; anatomy and physiology of the hearing

mechanism; and 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Employment opportunities for those with a BS 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 medicine, education, teaching for the deaf, special education, rehabilitation, or law. Graduates in SLP and Audiology can work in a variety of settings from schools to hospitals and clinics.

Transborder Chicana/o and Latina/o Studies (Media, Literature and Arts) (BA) LATCLMBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/transborder/> | COOR 6633 | 480/965-5091

Program Description: The Bachelor of Arts 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. The department already 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 corpuses 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.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: The bachelor's program in Transborder Chicana/o and Latina/o (TCL) Studies prepares ASU graduates for career opportunities in a variety of national and international fields, including justice studies, business fields, education, public policy and administration, communication, and health services. TCL majors will also be well prepared to enter graduate study in such high need career fields as education, law, social work, medicine, business and public health.

Transborder Chicana/o and Latina/o Studies (Transborder Community Development and Health) (BA) LATCLTBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/transborder/> | COOR 6633 | 480/965-5091

Program Description: The Bachelor of Arts 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 health care, 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, and epidemiological trends and issues of Mexican origin and Latina/o populations. Deeply embedded within local and transborder communities, methodological instruction and skills will be especially stressed.

Language Requirement: Y | Program Fee: N

Career Opportunities: The bachelor's program in Transborder Chicana/o and Latina/o (TCL) Studies prepares ASU graduates for career opportunities in a variety of national and international fields, including justice studies, business fields, education, public policy and administration, communication, and health services. TCL majors will also be well prepared to enter graduate study in such high need career fields as education, law, social work, medicine, business and public health.

Transborder Chicana/o and Latina/o Studies (US and Mexican Regional Immigration Policy and Economy) (BA) LATCLUBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://www.asu.edu/clas/transborder/> | COOR 6633 | 480/965-5091

Program Description: The Bachelor of Arts 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 where close to 12 million persons live in the immediate U.S.-Mexico border region and (2) the entire country with a total of 20.6 million persons of Mexican origin, either born 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. The department is well served by having some faculty strength in this area but is less strong in some aspects including economic, demographic and quantitative analysis. The recent hire of a sociological demographer, however, will greatly strengthen this area.

Language Requirement: Y | Program Fee: N

Career Opportunities: The bachelor's program in Transborder Chicana/o and Latina/o (TCL) Studies prepares ASU graduates for career opportunities in a variety of national and international fields, including justice studies, business fields, education, public policy and administration, communication, and health services. TCL majors will also be well prepared to enter graduate study in such high need career fields as education, law, social work, medicine, business and public health.

Women and Gender Studies (BA) LAWSTBA

COLLEGE OF LIBERAL ARTS AND SCIENCES, TEMPE

Contact: <http://wgs.asu.edu> | womens.studies@asu.edu | WHALL 205 | 480/965-2358

Program Description: The Bachelor of Arts 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.

Language Requirement: Y | Program Fee: N

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.

MANAGEMENT AND AGRIBUSINESS, MORRISON SCHOOL OF

Agribusiness (Agribusiness Finance) (BS) AGAGBNBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/undergrad/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: The agribusiness sector is one of the most competitive and riskiest sectors of the global economy. It is also one of the largest users of borrowed capital in the world. This program, the agribusiness finance concentration under the BS in Agribusiness, is designed to prepare professionals to lead their companies in managing risk and in evaluating business opportunities. Agribusiness finance concentration graduates are expected to possess a broad knowledge of financial theory and practice as it pertains to the agribusiness sector. This will involve applying quantitative and computer-based analytical techniques to real-world agribusiness problems. Specific course content includes topics in financial management, financial markets, risk management, and the evaluation of financial assets and business alternatives.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Specialists in agribusiness finance work as loan officers, credit analysts, commodity traders, financial advisors and financial managers. These positions are with banks, brokerage companies, food processing firms, commodity trading firms and insurance companies.

Agribusiness (Food Science) (BS) AGAGBFBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: The food science concentration, under the Bachelor of Science in Agribusiness degree program, prepares individuals for positions in the food industry involving product development, product/food safety and basic food quality assurance. It focuses on both scientific and technical competency skills with an emphasis on food microbiology, food chemistry, biotechnology, mathematics and statistics. The program requires knowledge of chemistry, microbiology, statistical process control and other business and agribusiness concepts.

Language Requirement: N | *Program Fee:* N

Career Opportunities: This unique program prepares graduates for employment opportunities in the food, beverage and dairy industries; regulatory agencies such as the FDA and USDA; international organizations such as FAO and WHO; and consumer organizations.

Agribusiness (Food/Agribusiness and Consumer Product Marketing) (BS) AGAGBDBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: The food industry is one of the largest marketing sectors in the world and one of the most innovative and active in terms of developing new products. This Bachelor of Science in Agribusiness degree program (with a concentration in food, agribusiness, and consumer product marketing) provides students with insights into the most basic decisions consumers make-decisions about the food they eat. Students develop critical skills relevant to dealing with firms involved in food, fiber, consumer products and pharmaceutical manufacturing; distribution; and retailing. Students also learn about the relationship between input suppliers, commodity associations and primary producers.

Language Requirement: N | *Program Fee:* N

Career Opportunities: This degree prepares graduates for careers in sales and marketing for food, beverage and consumer product companies.

Agribusiness (General Agribusiness) (BS) AGAGBGBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: The agribusiness major is an applied, industry-oriented curriculum. The study of the food and fiber system in the U.S. and around the world forms the basis of this particular program. The general agribusiness concentration, under Bachelor of Science degree in Agribusiness, is specifically designed to meet the needs of the urban student interested in business and agriculture. Students learn to analyze firms involved in input and output supply activities, commodity trading, food manufacturing and food distribution.

Language Requirement: N | *Program Fee:* N

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.

Agribusiness (Golf and Facilities Management) (BS) AGAGBCBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: The golf and facilities management concentration, under the Bachelor of Science in Agribusiness degree program, is designed to prepare students for careers as golf course superintendents. Through agribusiness core courses, students develop the critical skills needed to manage complex organizations. In addition, this concentration provides golf facilities management-related curriculum, including a hands-on internship experience at golf courses. The remaining course work is selected from the following areas: golf course operations; plants and landscaping; soils, irrigation, and water management; fertilizers; pest control; turf grass management; mechanics; and shop maintenance and repair.

Language Requirement: N | *Program Fee:* N

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 assistant superintendents, are abundant and the salaries are attractive.

Agribusiness (International Agribusiness) (BS) AGAGBIBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: Agribusiness contributes to about 50 percent of the global economy. It employs about 23 percent of the U.S. workforce and 90 percent of the workforce in some countries. We are increasingly reliant on globally traded food products. The international agribusiness concentration, under the Bachelor of Science degree in Agribusiness, provides students with insights into the policies, institutions and commercial processes associated with global trade in food and agricultural products.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Specialists in international agribusiness work in the private sector, government sector, and for nongovernmental organizations (NGOs). Their work entails trade in food and agricultural products and negotiations and administration of trade policies and regulations pertaining to food and agricultural products.

Agribusiness (Management of Agribusiness) (BS) AGAGBTBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: Agribusiness managers encounter many problems and opportunities on a daily basis that are unique to the agribusiness sector. The management of agribusiness concentration, under the Bachelor of Science in Agribusiness, prepares

students to meet these challenges. Students pursuing this degree program develop skills in managing people, internal resources and external relationships in an increasingly dynamic environment.

Language Requirement: N | *Program Fee:* N

Career Opportunities: All enterprises need confident and competent managers who have mastered business fundamentals. These needs exist in large multinational corporations, mid-size niche companies and entrepreneurial startups.

Agribusiness (Preveterinary Medicine) (BS) AGAGBPBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: A unique program offers students studying agribusiness an opportunity to prepare for admission to professional veterinary schools. Through the Bachelor of Science in Agribusiness (with a concentration in preveterinary medicine) degree program, students can elect to apply to veterinary college at the end of their third year at ASU and use the first year credits at the veterinary college to complete their BS degree at ASU. While completing the courses needed for acceptance into veterinary school, the student is broadening his or her career potential with agribusiness courses. Should a preveterinary student decide not to apply to a veterinary school, this major provides alternative career paths into human or veterinary pharmaceutical industries or the food industry.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Veterinarians have a vast spectrum of career opportunities, including private practice, biotechnology research, and positions in federal and state governmental agencies.

Agribusiness (Professional Golf Management) (BS) AGAGBMBS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://www.poly.asu.edu/msma/> | agbiz@asu.edu | WANNER 101 | 480/727-1585

Program Description: The professional golf management concentration, under the Bachelor of Science degree in Agribusiness, 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 PGA Class A professionals.

Language Requirement: N | *Program Fee:* Y

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.

Business Administration (BS) AGBUABS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Program Description: Business administration is the study of the fundamental functions and activities performed in profit-seeking and nonprofit organizations. The Bachelor of Science in Business Administration degree program enables students to gain essential business competencies, knowledge of business disciplines and methods, and an appreciation for contemporary business environments and cultures.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: Business graduates are prepared for careers that require broad background and general knowledge in the field of business is required. Graduates may choose to enter one of the areas of business or industry for which their emphasis on business fundamentals prepares them, start their own businesses, or pursue careers with local, state, or federal government. Some graduates choose to continue their education by enrolling in graduate programs or law school.

Real Estate (BS) AGREABS

MORRISON SCHOOL OF MANAGEMENT AND AGRIBUSINESS, POLY

Contact: <http://poly.asu.edu/msma/> | jay.butler@asu.edu | WANNER 140D | 480/727-1300

Program Description: Students in the Bachelor of Science in Real Estate degree program gain an understanding of both residential and commercial real estate markets. The curriculum combines the study of finance and real estate and focuses on competencies in real estate law, structuring real estate transactions, real estate valuation techniques, and an understanding of mortgages and mortgage markets. The program is organized around five aspects of real estate: brokerage/management, development, financing, investments and market analysis. Emphasis is placed on team work and involvement in projects designed to develop analytical, communication and technology skills.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: Graduates are prepared to pursue careers in land development, investment analysis, appraisal, property management, brokering and mortgage finance. Graduates may also choose to continue their education by enrolling in graduate degree programs or law school.

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES

American Studies (BA) ASAMSBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The BA 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: (1) American systems, dealing with political, economic, religious, and legal institutions; (2) American cultures, concentrating on systems of belief and their symbolic expression in literature, art, philosophy, and regional and popular cultures; (3) American lives, exploring the ways in which categories of race, ethnicity, class, and gender intersect with individual and community experience; and (4) 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. Refer to DARS for New College proficiency requirements that pertain to this program.

Language Requirement: N | *Program Fee:* N

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.

Applied Computing (BS) ASACOBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Science 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.

Language Requirement: N | *Program Fee:* N

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.

Applied Mathematics (BS) ASMATBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: gene.burgess@asu.edu | CLCC 217 | 602/543-4223

Program Description: The Bachelor of Science degree 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 non-profit organizations. Students will also do a capstone project involving real-world problems under the supervision of an adviser and in close consultation with an external project sponsor.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Students graduating with a BS in Applied Mathematics have a wide range of career options in industry, finance, government, non-profit 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, and General Applied Mathematics.

Applied Science (BAS) ASBASBAS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Applied Science (BAS) programs are a flexible, 60-semester hour degree designed specifically for students who have earned an Associate of Applied Science (AAS) degree from a regionally accredited institution. In completing the BAS, students complete all ASU graduation requirements. The Applied Science BAS 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, environmental issues and physical sciences, languages and cultures, social sciences and policy issues, education and teaching, criminal justice, and prelaw, to name a few. The Applied Science program is capped with an internship experience.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Emphasizing professional study combined with a specific area of concentration (e.g., business, communication studies, English, gerontology, history, psychology, or prelaw), 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.

Additional Admissions Requirements: Students applying to this program must have completed an Associate of Applied Science (A.A.S.) degree. Not available for freshmen.

Communication Studies (BA) ASCOMBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/> | comm_studies@asu.edu | FAB S141C | 602/543-6606

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

Program Description: Communication studies 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BA degree prepares students to work in communication environments such as training, human resources management and media relations. 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: management, personnel, training and development, sales and marketing, customer service and customer relations, media and public relations, legal professions, and education.

Communication Studies (BS) ASCOMBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/> | comm_studies@asu.edu | FAB S141C | 602/543-6606

At the outset of the 2008-09 academic year, this degree/certificate/major was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree/certificate/major program was moved to the New College of Interdisciplinary Arts and Sciences at the West campus.

Program Description: Communication studies 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 BS degree 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The program prepares students for advanced education; advancement toward careers in teaching, counseling, law, and medicine; and various careers and professions, including training and development, public relations, public administration, public office, public advocacy, speech writing, lobbying, research, advertising, mediation, customer relations, human resources, health and human services, international service, fund-raising, and the ministry.

English (BA) ASENGBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Arts in English within the New College of Interdisciplinary Arts and Sciences emphasizes the study of texts in context. Students study not only the forms of writing but also the history of those forms, as well as read and analyze literature from a broad range of periods and genres. Students learn to produce good expository prose. The program allows students to emphasize particular genres, periods, regions, and themes through a mix of required courses and electives. Students determine appropriate programs of study in consultation with department academic advisors. Refer to DARS for New College proficiency requirements that pertain to this program.

Language Requirement: N | Program Fee: N

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.

Ethnicity, Race, First Nation Studies (BA) ASETHBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: Ethnicity, Race and First Nation Studies is the first such Bachelor of Arts 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. Refer to DARS for New College proficiency requirements that pertain to this program.

Language Requirement: N | Program Fee: N

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.

History (BA) ASHISBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Arts 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. Refer to DARS for New College proficiency requirements that pertain to this program.

Language Requirement: N | Program Fee: N

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.

Integrative Studies (BA) ASIASBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: newcollege.asu.edu | iasinfo@asu.edu | FAB N279 | 602/543-6003

Program Description: The BA 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, environmental issues and physical sciences, languages and cultures, social sciences and policy

issues, education and teaching, criminal justice, and prelaw, to name a few. Flexible and diverse, the program is capped with an internship experience.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Emphasizing interdisciplinary study combined with a specific area of concentration (e.g., business, communication studies, English, gerontology, history, psychology, or prelaw), 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.

Interdisciplinary Arts and Performance (BA) ASIAPBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Arts 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.

Language Requirement: N | *Program Fee:* N

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.

Additional Admissions 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.

Life Sciences (BS) ASLSCBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The intricate connections between biology, chemistry and physics form the basis of the Life Sciences curriculum. The Bachelor of Science program emphasizes experiential learning: All required core courses have laboratories. By learning in an integrative environment that emphasizes the connectedness between 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BS 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: Laboratory technician or research associate positions in university and government research laboratories and hospital and diagnostic laboratories, as well as 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).

Political Science (BA) ASPOLBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/programs/polisci/> | SBS.Dept@asu.edu | FAB N251 | 602/543-6058

Program Description: Students gain understanding of theory, practice and policy underlying political processes locally, nationally and internationally in the Political Science Bachelor of Arts 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.

Language Requirement: N | *Program Fee:* N

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.

Political Science (BS) ASPOLBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

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

Program Description: Students gain understanding of theory, practice and policy underlying political processes locally, nationally and internationally in the Political Science Bachelor of 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 BS program requires six more semester hours (SBS 304 Social Statistics and a political science elective) than the BA.

Language Requirement: N | *Program Fee:* N

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.

Psychology (BA) ASPGSBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/programs/psychology/> | sbs.dept@asu.edu | FAB N251 | 602/543-6058

Program Description: The diverse Bachelor of Arts 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.

Language Requirement: N | Program Fee: N

Career Opportunities: A degree in Psychology will prepare students for a career in the mental health professions (e.g., youth counselor, substance abuse counselor), the social services (e.g., high school psychology teacher, occupational analyst), and the 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, developmental, environmental, experimental, physiological, cognitive neuroscience, and social.

Psychology (BS) ASPGSBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/programs/psychology/> | sbs.dept@asu.edu | FAB N251 | 602/543-6058

Program Description: The Bachelor of Science 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, and 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 BS program is distinguished from the BA 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.

Language Requirement: N | Program Fee: N

Career Opportunities: A Bachelor of Science in Psychology will prepare students for a career in the mental health professions (e.g., youth counselor, substance abuse counselor), the social services (e.g., high school psychology teacher; occupational analyst), and the 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, developmental, environmental, experimental, physiological, cognitive neuroscience, and social.

Religion and Applied Ethics Studies (BA) ASRELBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: Many people make ethical decisions in the context of their religious beliefs or worldviews. By combining the disciplines of religion and applied ethics studies, students are able to analyze problems more realistically. Students in the Bachelor of Arts program in Religion and Applied Ethics Studies (RAES) 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 RAES program is capped with a thesis and internship experience.

Language Requirement: N | Program Fee: N

Career Opportunities: Graduates can anticipate opportunities in the following fields explored through their required internships: religious organizations, government, law, medicine, law enforcement, criminal justice, education, media, business, social services, and human resources.

Social and Behavioral Sciences (Behavioral Sciences) (BA) ASSBSBBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/programs/sbs> | SBS.Dept@asu.edu | FAB N251 | 602/543-6058

Program Description: The Bachelor of Arts 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).

Language Requirement: N | *Program Fee:* N

Career Opportunities: The interdisciplinary degree is an excellent means toward creating a degree program that matches the individual's interests and fulfills many employers' expectations of a baccalaureate degree, namely that it should expose the student to a variety of outlooks and challenges. Such a degree will be competitive in most situations where the disciplinary social and behavioral degrees are accepted and is advantageous when seeking entry to broad professional programs such as regional planning or urban studies.

Social and Behavioral Sciences (Behavioral Sciences) (BS) ASSBSBBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/programs/sbs/> | SBS.Dept@asu.edu | FAB N251 | 602/543-6058

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).

Language Requirement: N | *Program Fee:* N

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 baccalaureate degree, namely that it should expose the student to a variety of outlooks and challenges. Such a degree will be competitive in most situations where the disciplinary social and behavioral degrees are accepted and is advantageous when seeking entry to broad professional programs such as regional planning or urban studies.

Social and Behavioral Sciences (Social Sciences) (BA) ASSBSSBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/programs/sbs> | SBS.Dept@asu.edu | FAB N251 | 602/543-6058

Program Description: The Bachelor of Arts 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).

Language Requirement: N | *Program Fee:* N

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and behavioral degrees are accepted and is advantageous when seeking entry to broad professional programs such as regional planning or urban studies.

Social and Behavioral Sciences (Social Sciences) (BS) ASSBSSBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: <http://newcollege.asu.edu/programs/sbs> | SBS.Dept@asu.edu | FAB N251 | 602/543-6058

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).

Language Requirement: N | *Program Fee:* N

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 baccalaureate degree, namely that it should expose the student to a variety of outlooks and challenges. Such a degree will be competitive in most situations where the disciplinary social and behavioral degrees are accepted and is advantageous when seeking entry to broad professional programs such as regional planning or urban studies.

Sociology (BA) ASSOCBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Arts 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.

Language Requirement: N | *Program Fee:* N

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 research analysts, survey researchers, gerontologists, statisticians, urban planners, community developers, criminologists, or demographers.

Sociology (BS) ASSOCBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Science 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 BS program requires six more semester hours of methods courses (both qualitative and quantitative) than the BA. This is a flexible program with individual and group experiences in working with faculty on concrete intellectual and policy issues.

Language Requirement: N | Program Fee: N

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 research analysts, survey researchers, gerontologists, statisticians, urban planners, community developers, criminologists, or demographers.

Spanish (BA) ASSPABA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: lch.info@asu.edu | FAB N220 | 602/543-6090

Program Description: The Bachelor of Arts 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. Refer to DARS for New College proficiency requirements that pertain to this program.

Language Requirement: N | Program Fee: N

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.

Women's Studies (BA) ASWSTBA

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Contact: FAB N291 | 602/543-3300

Program Description: The Bachelor of Arts 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 in the Women's Resource Center, seeks to further the understanding of women and gender, and to promote social justice.

Language Requirement: N | Program Fee: N

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, health care services, human resources development, public and business administration, social services, and graduate study in the humanities and social sciences.

Women's Studies (BS) ASWSTBS

NEW COLLEGE OF INTERDISCIPLINARY ARTS AND SCIENCES, WEST

Program Description: The Bachelor of Science (BS) 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 in the Women's Resource Center, seeks to further the understanding of women and gender, and to promote social justice. The BS degree program is distinguished by its quantitative emphasis.

Language Requirement: N | Program Fee: N

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, health care services, human resources development, public and business administration, social services, and graduate study in the humanities and social sciences.

NURSING & HEALTHCARE INNOVATION, COLLEGE OF

Nursing (BSN) NUNURDBSN

COLLEGE OF NURSING AND HEALTHCARE INNOVATION, DTPHX

Program Description: Through a curriculum based upon evidence-based, critical thinking, sound knowledge, and strong interpersonal communication skills, the Bachelor of Science in Nursing (BSN) degree program prepares students to provide the highest quality of healthcare. 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. Graduates deliver nursing care to individuals, families, and communities. BSN 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.

In addition to the traditional BSN program, ASU also offers these program options:

The RN to BSN entry option (http://nursing.asu.edu/programs/undergraduate/rnbsn/rnbsnchsht_nonalliance.pdf) offers **Registered Nurses** the opportunity to complete Upper Division Nursing Program requirements leading to a Bachelor of Science in Nursing.

The Arizona State University/Maricopa County Community College District Nursing Alliance Program (http://nursing.asu.edu/programs/undergraduate/rnbsn/rnbsnchsht_alliance.pdf) is specifically designed for students in a Maricopa County Community College interested in the RN-BSN Track Program.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The career outlook within the nursing field is excellent, with an estimated 100,000 vacant positions and a growing need. A nursing degree opens doors to many types of practice settings and provides a future in promoting health and preventing disease. Registered Nurses (RN's) work with diverse population groups in hospitals, clinics, schools, industry and communities. RN's are a critical link in providing care to individuals and families across the life span.

PUBLIC PROGRAMS, COLLEGE OF

Criminal Justice and Criminology (BS) PPCRIMJBS

COLLEGE OF PUBLIC PROGRAMS, DTPHX

Contact: scj@asu.edu | 602/543-6607

At the outset of the 2008-09 academic year, this degree was offered by the College of Human Services on ASU's West campus. As a result of the academic reorganization that occurred during the 2008-09 academic year, this degree program was moved to the College of Public Programs at the Downtown Phoenix campus.

Program Description: The School of Criminology and Criminal Justice administers the program through the College of Public Programs. CRJ courses are offered on the Tempe, Downtown Phoenix and West campuses. 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 School of Criminology and Criminal Justice offers undergraduate and graduate degrees in Criminal Justice and Criminology. 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.

Language Requirement: N | *Program Fee:* N

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 law enforcement, probation, parole, corrections, private security, court personnel, legal offices, and victim witness advocate agencies. Graduates may also pursue advanced degrees in law, criminology and criminal justice, and other social science disciplines.

Nonprofit Leadership and Management (BS) PPNLMBS

COLLEGE OF PUBLIC PROGRAMS, DTPHX

Program Description: Through the Bachelor of Science in Nonprofit Leadership and Management degree 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 (<http://scrd.asu.edu/portal/ia/certificate-programs-1/>).

Language Requirement: N | *Program Fee:* N

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.

Parks and Recreation Management (BS) PPRMBS

COLLEGE OF PUBLIC PROGRAMS, DTPHX

Program Description: The parks and recreation fields emerged from the youth development, recreation and park movements of the late 19th century. The Bachelor of Science (BS) in Parks and Recreation degree provides an interdisciplinary education in the management of parks, protected areas and community-based recreation services. 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 BS 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. Students interested in the Bachelor of Science in Parks and Recreation Management may also be interested in the school's Therapeutic Recreation program; see the Web site (<http://scrd.asu.edu/portal/programs/undergraduate/parks-recreation-management-prm/bs-in-parks-and-recreation-management-therapeutic-recreation-emphasis>).

Language Requirement: N | *Program Fee:* N

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.

Social Work (BSW) PPSWUSWU

COLLEGE OF PUBLIC PROGRAMS, WEST

Program Description: Social work practitioners are committed to challenging inequities, enhancing human capacity to solve complex problems and creating a more just and humane society. The goal of the Bachelor of Social Work degree program is to prepare professional social workers for generalist practice. Of particular importance is a concern for and willingness to work with oppressed, diverse, and underserved populations. The program is designed to prepare students for culturally sensitive practice. The degree also provides a foundation for those who may later pursue graduate training in social work. During the freshman and sophomore years, students concentrate on obtaining a strong background in liberal arts and sciences and are classified as preprofessional until they are officially admitted to the professional program.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates work in public and private social service agencies that provide services in child welfare, health, corrections, substance abuse, aging, mental health and public assistance. Due to the current demand for social services, agencies are now seeking more trained social work graduates.

Tourism Development and Management (BS) PPTDMBS

COLLEGE OF PUBLIC PROGRAMS, DTPHX

Program Description: Through the Bachelor of Science in Tourism Development and Management degree 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 BS 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. For more information, access the school's Web site (<http://scrd.asu.edu/portal/ia/study-abroad-programs/>).

Language Requirement: N | *Program Fee:* N

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.

Urban and Metropolitan Studies (BA) PPURBBA

COLLEGE OF PUBLIC PROGRAMS, DTPHX

Contact: <http://spa.asu.edu/new/urban/default.htm> | spa@asu.edu | UCENT 450 | 602/496-0450

Program Description: The Bachelor of Arts degree 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.

Language Requirement: Y | Program Fee: N

Career Opportunities: 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.

Urban and Metropolitan Studies (BS) PPURBBS

COLLEGE OF PUBLIC PROGRAMS, DTPHX

Contact: <http://spa.asu.edu/new/urban/default.htm> | spal@asu.edu | UCENT 450 | 602/496-0450

Program Description: The Bachelor of Science degree 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 BS program are required to complete an upper-division course in statistics.

Language Requirement: N | Program Fee: N

Career Opportunities: 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.

SUSTAINABILITY, SCHOOL OF

Sustainability (BA) SUSUSTBA

SCHOOL OF SUSTAINABILITY, TEMPE

Contact: <http://schoolofsustainability.asu.edu> | schoolofsustainability@asu.edu | GIOS 108 | 480/727-6963

Program Description: The Bachelor of Arts (BA) 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 BA in Sustainability is best suited to those inclined towards social sciences, planning or related fields. Students pursuing a BA 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 towards problem solving.

Language Requirement: Y | Program Fee: N

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 challenges having to do with sustainable ecosystems, social transformations, energy, materials and technology, international development, urbanization and water resources.

Sustainability (BS) SUSUSTBS

SCHOOL OF SUSTAINABILITY, TEMPE

Contact: <http://schoolofsustainability.asu.edu> | schoolofsustainability@asu.edu | GIOS 108 | 480/727-6963

Program Description: The Bachelor of Science (BS) 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 BS in Sustainability is best suited to those inclined towards natural sciences or engineering. Students pursuing a BS 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 towards problem solving.

Language Requirement: Y | *Program Fee:* N

Career Opportunities: Recent interest in sustainability within business and government has created new employment opportunities (e.g., sustainability coordinators, directors, and managers) for School of Sustainability graduates. 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 challenges having to do with sustainable ecosystems, social transformations, energy, materials and technology, international development, urbanization, and water resources. Sustainability graduates are prepared for admission into strong graduate and professional schools or may assume positions in industry, consultancy, utilities, regulatory agencies, nonprofits, nongovernmental organizations or governmental agencies.

TEACHER EDUCATION AND LEADERSHIP, COLLEGE OF

Early Childhood Teaching and Leadership (BAE) TEECTLBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, DTPHX

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S218 | 602/543-6358

Program Description: The BAE in Early Childhood Teaching and Leadership (ECTL) program in the College of Teacher Education and Leadership is available on the West and Downtown Phoenix campuses. This program offers students a firm grounding in early childhood teaching and programming with special emphasis on community connectedness, technology integration, administration, and 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-Grade 3 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.

Language Requirement: N | *Program Fee:* N

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 2009. 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. Over 98 percent of graduates accept employment offers within the first year of completing this program.

Elementary Education (BAE) TEEEDBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, WEST

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S218 | 602/543-6358

Program Description: The BAE in Elementary Education degree program in the College of Teacher Education and Leadership is available on both the West and Downtown Phoenix 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 BAE in Elementary Education are recommended for grades 1-8 teacher certification. All graduates of this program will have to pass a state certification test in content area knowledge and professional knowledge.

Language Requirement: N | *Program Fee:* N

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. Over 98 percent of graduates accept employment offers within the first year of completing this program.

Elementary Education (Bilingual Education) (BAE) TEBLEBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, WEST

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S218 | 602/543-6358

Program Description: The BAE in Elementary Education, Diversity in Languages and Literature with a Bilingual Endorsement in the College of Teacher Education and Leadership is available on the West and Downtown Phoenix campuses. 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 bilingual education academic program. The bilingual education concentration requires proficiency in Spanish. Students who complete the Bachelor of Arts in Elementary Education, Diversity in Languages and Literature with a bilingual endorsement are recommended for grades 1-8 teacher certification. All graduates of this program will have to pass the state certification test in content area knowledge and professional knowledge.

Language Requirement: Y | *Program Fee:* N

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. Students seeking endorsement 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. Over 98 percent of graduates receive employment offers within the first year of completing this program.

Elementary Education (English as a Second Language) (BAE) TEESLBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, DTPHX

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S218 | 602/543-6358

Program Description: The Elementary Education, Diversity in Languages and Literature with an English as a Second Language endorsement program in the College of Teacher Education and Leadership is available on the West and Downtown Phoenix campuses. 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 semester hours of a foreign language or its equivalent

and will enable the student to work with second-language learners. Students who complete the BAE in Elementary Education, Diversity in Languages and Literature with an English as a Second Language endorsement are recommended for grades 1-8 teacher certification. All graduates of this program will have to pass the state certification test in content area knowledge and professional knowledge.

Language Requirement: N | *Program Fee:* N

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. Over 98 percent of graduates receive employment offers within the first year of completing this program.

Secondary Education (English) (BAE) TEENGBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, WEST

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S5251A | 602/543-6445

Program Description: The Department of Secondary Education in the College of Teacher Education in Leadership offers a three-semester professional program leading to a degree in Secondary Education. In addition, students may complete one of seven secondary specializations at the West or Downtown Phoenix campuses: biological sciences, English, history, mathematics, natural sciences, social studies, and 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 7-12.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates of this program have a 95 percent placement rate for secondary education teaching positions within the first year. There is a demand for all teachers due to the retirement of the workforce and increased population growth; the highest demand is for teachers of mathematics and science. There will be more competition for teaching positions in English, history, and social studies. The career of teaching offers rich personal rewards. The fiscal compensation, although not as high as some other fields, has been increasing and the benefits are strong. Many other states accept Arizona certification through reciprocity agreements.

Secondary Education (History) (BAE) TEHISBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, WEST

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S5251A | 602/543-6445

Program Description: The Department of Secondary Education in the College of Teacher Education in Leadership offers a three-semester professional program leading to a degree in Secondary Education. In addition, students may complete one of seven secondary specializations at the West or Downtown Phoenix campuses: biological sciences, English, history, mathematics, natural sciences, social studies, and 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 7-12.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates of this program have a 95 percent placement rate for secondary education teaching positions within the first year. There is a demand for all secondary education teachers due to the retirement of the workforce and increased population growth; the highest demand is for teachers of mathematics and science. There will be more competition for teaching positions in English, history, and social studies. The career of teaching offers rich personal rewards. The fiscal compensation, although not as high as some other fields, has been increasing and the benefits are strong. Many other states accept Arizona certification through reciprocity agreements.

Secondary Education (Mathematics) (BAE) TEMATBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, WEST

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S5251A | 602/543-6445

Program Description: The Department of Secondary Education in the College of Teacher Education in Leadership offers a three-semester professional program leading to a degree in Secondary Education. In addition, students may complete one of seven secondary specializations at the West or Downtown Phoenix campuses: biological sciences, English, history, mathematics, natural sciences, social studies, and 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 7-12.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates of this program have a 95 percent placement rate for secondary education teaching positions within the first year. There is a demand for all teachers due to the retirement of the workforce and increased population growth; the highest demand is for teachers of mathematics and science. The career of teaching offers rich personal rewards. The fiscal compensation, although not as high as some other fields, has been increasing and the benefits are strong. Many other states accept Arizona certification through reciprocity agreements.

Secondary Education (Natural Sciences) (BAE) TENSCTBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, WEST

Program Description: Secondary education includes the span of grades 7 to 12. Broad labels include high school, junior high school, and middle school. Secondary education teachers have responsibility for teaching and assessing students in these grades and promoting positive learning climates. Secondary school teachers are typically specialized to teach one subject such as mathematics, history, English, or science.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates of this program have a 95% placement rate for secondary education teaching positions within the first year. While there is a demand for all teachers due to the retirement of the workforce and increased population growth, the highest demand is for teachers of mathematics and science. The career of teaching offers rich personal rewards. The fiscal compensation, although not as high as some other fields, has been increasing and the benefits are strong. Many other states accept Arizona certification through reciprocity agreements.

Secondary Education (Social Studies) (BAE) TESSTBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, WEST

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S5251A | 602/543-6445

Program Description: The Department of Secondary Education in the College of Teacher Education in Leadership offers a three-semester professional program leading to a degree in Secondary Education. In addition, students may complete one of seven secondary specializations at the West or Downtown Phoenix campuses: biological sciences, English, history, mathematics, natural sciences, social studies, and 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 7-12.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates of this program have a 95 percent placement rate for secondary education teaching positions within the first year. There is a demand for all teachers due to the retirement of the workforce and increased population growth; the highest demand is for teachers of mathematics and science. There will be more competition for teaching positions in English, history, and social studies. The career of teaching offers rich personal rewards. The fiscal compensation, although not as high as

some other fields, has been increasing and the benefits are strong. Many other states accept Arizona certification through reciprocity agreements

Special Education (BAE) TESPEBAE

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP, DTPHX

Contact: <http://ctel.asu.edu/programs/> | CTELquestions@asu.edu | FAB S252A | 602/543-6358

Program Description: The BAE in Special Education in the College of Teacher Education and Leadership is available on the West and Downtown Phoenix 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 learning 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: National and state studies report the current and projected need over the next 5-10 years will be foremost for special education teachers. Graduates of the BAE 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.

TECHNOLOGY AND INNOVATION, COLLEGE OF

Aeronautical Management Technology (Air Transportation Management) (BS) TSAMTMBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The air transportation management concentration, under the Bachelor of Science in Aeronautical Management Technology, provides students with a thorough technical background combined with an interdisciplinary general university education. The student gains a 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.

Language Requirement: N | *Program Fee:* Y

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.

Aeronautical Management Technology (Professional Flight) (BS) TSAMTFBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The professional flight concentration, under the Bachelor of Science degree in Aeronautical Management Technology, is designed for students who are seriously interested in becoming professional airline pilots. This program combines a thorough technical education with an interdisciplinary general university education. This combination prepares graduates 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. The Federal Aviation Administration (FAA) certifies flight instruction.

Language Requirement: N | *Program Fee:* Y

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.

Additional Admissions 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.

Air Traffic Management (BS) TSATMBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: Air traffic control specialists guide aircraft to ensure a safe, orderly, and expeditious flow of aircraft traffic both on the ground and in the air. The Bachelor of Science degree in Air Traffic Management is designed to provide a technical foundation in air traffic control procedures and operations. Students gain a background in aircraft operations, management skills, and business principles through a variety of course work specific to air traffic control. This program is designed for students who are seriously interested in becoming air traffic controllers.

Language Requirement: N | *Program Fee:* Y

Career Opportunities: It is estimated that the FAA will hire approximately 15,000 air traffic controllers in the next ten 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 trying to get into the schools than there are openings. However, graduates from this program have an excellent opportunity of being hired as air traffic controllers.

Additional Admissions Requirements: This major has additional admission requirements including Federal Aviation Administration requirements. Students who do not have US citizenship status cannot be admitted to the program. Students will be admitted to the pre-professional status and then complete additional requirements for admission to the professional program. See www.poly.asu.edu/aviation for more information.

Applied Computer Science (BS) TSACSB

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Bachelor of Science degree in Applied Computer Science is designed to provide students with an education that targets the computing profession. Computer scientists 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Graduates find opportunities as members of an engineering team in software applications, in areas such as Web-based, database, limited device (cell phones), or network 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.

Applied Science (BAS) TSAPSBAS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Bachelor of Applied Science (B.A.S.) program has a flexible degree plan designed specifically for students who have earned an Associate of Applied Science (AAS) degree 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. Students in the B.A.S. program within the College of Technology and Innovation chose a field of study from a list of numerous concentrations. These concentrations include: aviation maintenance management technology, aviation management technology, computer systems administration, cyber security, microcomputer systems, software technology applications, digital media management, digital publishing, emergency management, fire service management, internet and Web development, law enforcement management, municipal operations management, operations management, technology graphics, alternative energy technologies, semiconductor technology, manufacturing technology and management, materials joining and manufacturing technology.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The wide range of concentrations to choose from offer Bachelor of Applied Science program graduates a great deal of diversity in terms of career opportunities. In general, course work provided by the B.A.S. program gives the graduate a broader understanding of what is required of 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.

Additional Admissions Requirements: Students applying to this program must have completed an Associate of Applied Science (AAS) degree. This program is not available for freshmen.

Applied Science (Fire Service Management) (BAS) TSIMCFBAS

COLLEGE OF TECHNOLOGY AND INNOVATION, ONLNE

Program Description: The Bachelor of Applied Science (BAS) programs are a flexible, 60-semester hour degree designed specifically for students who have earned an Associate of Applied Science (AAS) degree from a regionally accredited institution. In completing the BAS, students complete all ASU graduation requirements. The concentration in Fire Service Management provides students with management, leadership, critical thinking, and communication skills - along with significant work in fire service management - that will broaden their career horizons, promote life-long learning, and enrich their personal and civic life.

Language Requirement: N | *Program Fee:* N

Career Opportunities: ASU's Polytechnic campus Fire Service Programs prepare students and practitioners to successfully perform managerial duties in federal, state, and local, fire departments and related fire service organizations, including institutions of higher learning by providing them with cutting edge technology, education, and skills in the areas of fire service.

Additional Admissions 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.

Applied Science (Internet and Web Development) (BAS) TSIWDBAS

COLLEGE OF TECHNOLOGY AND INNOVATION, ONLNE

Program Description: The Bachelor of Applied Science (BAS) programs are a flexible, 60-semester hour degree designed specifically for students who have earned an Associate of Applied Science (AAS) degree from a regionally accredited institution. In completing the BAS, students complete all ASU graduation requirements. The concentration in Internet and Web Development provides you with management, leadership, critical thinking, and communication skills along with significant work in a professional specialization that will broaden your career horizons, promote life-long learning, and enrich your personal and civic

life. This program makes extensive use of the Graphic Information Solutions facility where modern design practices and digital work flow combine with different print and reproduction processes to afford students a contextual learning environment. Students may further enrich their educational experience in the Student Web Development Enterprise, the GIT Commercial Photography Studio, or the X-Rite Color Metrology Laboratory. There are four options within the BAS in Internet and Web Development:

Digital Media Management
Digital Publishing
Internet and Web Development
Technical Graphics

Language Requirement: N | *Program Fee:* N

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 Web site design option prepares graduates for careers in the ever-expanding arena of Web site design and publishing. This degree is available as an entirely online degree program.

The Digital Publishing concentration prepares graduates for lead technical and entry-level management positions in the Printing and Publishing industry.

The Digital Media Management concentration prepares graduates for technical positions in industries implementing, planning, and producing interactive communications, integrated media, and multimedia for design, training, and marketing.

Additional Admissions 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.

Applied Science (Operations Management Technology) (BAS) TSIMCOBAS

COLLEGE OF TECHNOLOGY AND INNOVATION, ONLNE

Program Description: The Bachelor of Applied Science (BAS) programs are a flexible, 60-semester hour degree designed specifically for students who have earned an Associate of Applied Science (AAS) degree from a regionally accredited institution. In completing the BAS, students complete all ASU graduation requirements. The concentration in Operations Management Technology provides the tools needed for success as a manager. An effective manager is someone who can organize work, understands the work environment and can create 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 his/her unit's part in the mission of the organization.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The BAS in Operations Management Technology prepares undergraduate students for supervisory and management functions in industry, manufacturing, public service, and other service organizations.

Additional Admissions 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.

Computer Systems (Computer Hardware Technology) (BS) TSCSTHBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The computer hardware technology concentration, under the Bachelor of Science 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.

Language Requirement: N | Program Fee: N

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.

Computer Systems (Embedded Systems Technology) (BS) TSCSTMBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The embedded systems technology concentration, under the Bachelor of Science 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.

Language Requirement: N | Program Fee: N

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.

Electronics Engineering Technology (Alternative Energy Technologies) (BS) TSEETABS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The alternative energy technologies concentration, under the BS 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 that comprises production of electricity from solar energy, and utilizing 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.

Language Requirement: N | Program Fee: N

Career Opportunities: The alternative energy technologies concentration is generally aimed at preparing graduates for careers in 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.

Electronics Engineering Technology (Electronic Systems) (BS) TSEETEBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

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, allows students to develop a broad-based knowledge of electrical/electronic fundamentals with an applications perspective. The Technology Accreditation Commission of the Accreditation Board accredits this program.

Language Requirement: N | Program Fee: N

Career Opportunities: The electronic systems concentration is generally aimed at preparing 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.

Electronics Engineering Technology (Integrated Systems) (BS) TSEETINBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The integrated electronic systems concentration, under the Bachelor of Science in Electronics Engineering Technology, 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 the real industry.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Upon completion of this concentration graduates are prepared for careers in microelectronics industry. Graduates of this concentration secure positions in integrated circuit processing, testing, field applications, system integrators and as members of diverse scientific engineering teams.

Electronics Engineering Technology (Telecommunications) (BS) TSEETTBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The telecommunications concentration, under the Bachelor of Science in Electronics Engineering Technology, covers the processes and technology used to develop, design, implement and exploit reliable information transfer throughout the whole frequency spectrum with wired and wireless links. Applications include cable TV, fiber optic links and satellite transmission circuits and systems.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Upon completion of this concentration graduates are prepared for careers in communications industry. Graduates of this concentration secure positions as communications specialists, system integrator, testing, field applications, and as members of diverse scientific engineering teams.

Engineering (BSE) TSEGRBSE

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

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 new innovative products, preparing for potential catastrophes, and providing society with technological leadership. The Bachelor of Science in Engineering (B.S.E.) degree 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Engineers normally work as a member of a team that is designing, manufacturing and delivering technological objects and services. While large corporations and governments employ many engineers, others work in small companies or start companies of their own.

Environmental Technology Management (BS) TSETMBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: This degree program 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 Bachelor of Science in Environmental Technology Management (ETM) curriculum includes courses in biology, chemistry, physics, calculus, computer science and statistics. The core of course work includes courses in environmental law; occupational hygiene; environmental chemistry; technologies for control of air pollution, water treatment and hazardous waste remediation; emergency management; and international environmental management. In addition to the technical course, students take management courses such as technical communications, project management and management dynamics.

Language Requirement: N | *Program Fee:* N

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 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.

Graphic Information Technology (BS) TSGITBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The cross-media nature of the graphic information industry requires today's graduates to understand the full spectrum of graphic imaging and reproduction processes, and current business practices. The Bachelor of Science 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 three-dimensional modeling, project management, quality assurance, and e-commerce practices. The National Association of Industrial Technology professionally accredits the graphic information technology program.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The Graphic Information Technology degree prepares graduates for technical and management positions in the diverse graphic communication and information technology industries: digital printing and publishing; technical/digital media production; management of graphic information assets; quality assurance of graphic products; planning and evaluation of print, Internet, multimedia, and computer-based communications.

Manufacturing Engineering Technology (Manufacturing Engineering Technology) (BS) TSMETBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Manufacturing Engineering Technology program emphasizes applied engineering practice through a Bachelor of Science degree program. In the program, engineering, math, and science principles are applied to the solution of technical problems in a lecture/laboratory environment. The program's educational approach focuses on producing a work-ready graduate by incorporating knowledge practicing manufacturing engineers use in their work in industry. This is accomplished by students "learning by doing" via the use of equipment typical of that found in industry. The program's manufacturing laboratories are among the best in the nation. Industrial "strength" manufacturing equipment (including CNC machining centers), welding, casting and forming, automation, and material testing facilities support the curriculum. Laboratory sections are restricted to 12-15 or fewer students whenever possible. In addition, all faculty in the program have industry experience in addition to their doctoral degrees.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The B.S. degree 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 of it, provide a wide range of opportunities for graduates.

Manufacturing Engineering Technology (Mechanical Engineering Technology) (BS) TSMETMBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Manufacturing Engineering Technology program emphasizes applied engineering practice through a Bachelor of Science degree program. In the program, engineering, math, and science principles are applied to the solution of technical problems in a lecture/laboratory environment. The program's educational approach focuses on producing a work-ready graduate by incorporating knowledge practicing manufacturing engineers use in their work in industry. This is accomplished by students "learning by doing" via the use of equipment typical of that found in industry. 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 primary objective of the mechanical engineering technology concentration is to offer manufacturing students an emphasis in mechanics and design. The required 15 credits are:

MET 409, Applied Engineering Economics;
MET 410, Manufacturing Resource Management;
MET 434, Applied Fluid Mechanics;
MET 438, Machine Design II; and,
Technical Electives.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The B.S. Degree 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 of it, provide a wide range of opportunities for graduates.

Mechanical Engineering Technology (Aeronautical Engineering Technology) (BS) TSMECEBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Mechanical Engineering Technology program emphasizes applied engineering practice through a Bachelor of Science degree program. Students can customize their degree with a specialized concentration in aeronautical, engineering technology. The aeronautical engineering technology concentration provides a specialty 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. However, aeronautical concentration graduates have a good general background in mechanical engineering technology and are not limited to employment opportunities in just the aviation industry.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The B.S. degree in Mechanical Engineering Technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement, and improve products, machinery, and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

Mechanical Engineering Technology (Automation Engineering Technology) (BS) TSMECUBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Mechanical Engineering Technology program emphasizes applied engineering practice through a Bachelor of Science degree program. Students can customize their degree with a specialized concentration in automation engineering technology. The automation engineering technology concentration 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The B.S. degree in Mechanical Engineering Technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement and improve products, machinery and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

Mechanical Engineering Technology (Automotive Engineering Technology) (BS) TSMECTBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Mechanical Engineering Technology program emphasizes applied engineering practice through a Bachelor of Science degree program. Students can customize their degree a specialized concentration in automotive engineering technology. The automotive concentration provides comprehensive exposure to modern automobiles. The concentration's 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.

Language Requirement: N | *Program Fee:* N

Career Opportunities: The B.S. degree in Mechanical Engineering Technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement, and improve products, machinery, and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

Mechanical Engineering Technology (Mechanical Engineering Technology) (BS) TSMECBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Mechanical Engineering Technology program emphasizes applied engineering practice through a Bachelor of Science degree program. Students in this program are people who enjoy the practice of engineering. As graduates, they often work as members of design and development teams, cooperating with other people both in and outside of their company. The program emphasizes understanding how engineering principles are applied in practice. 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.

Language Requirement: N | Program Fee: N

Career Opportunities: The B.S. degree in Mechanical Engineering Technology and its specialty concentrations offer great flexibility in both type of work and location. Employment opportunities exist in companies that design, develop, manufacture, implement, and improve products, machinery and systems. Employment areas include engineering design, manufacturing, and research and development. Companies large and small, in this region and elsewhere, provide a wide range of opportunities for graduates.

Operations Management Technology (BS) TSOMTBS

COLLEGE OF TECHNOLOGY AND INNOVATION, POLY

Program Description: The Bachelor of Science in Operations Management Technology degree program prepares students for supervisory and administrative positions within a broad range of industries. Course work includes human resource management, quality management, project management, operations management, legal issues in technology, safety management, lean manufacturing, industrial organization, labor relations, economics, effective decision making, finance, international management, ethical studies and marketing. Students who lack previous work experience are encouraged to complete an industry internship before graduation.

Language Requirement: N | Program Fee: N

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, industrial planning, design, customer relations, and personnel training and development.

UNIVERSITY COLLEGE

Exploratory Health and Life Sciences UCHSCIEXPL

UNIVERSITY COLLEGE, DTPHX

Contact: <http://uc.asu.edu/>

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 major, reference the Major Map listed below.

Language Requirement: N | Program Fee: N

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

Additional Admissions Requirements: This is not a degree granting major. Students with more than 45 transfer hours will not be admitted to this major and should select a different major on the application for admission.

Exploratory Humanities, Fine Arts and Design UCHUFAEXPL

UNIVERSITY COLLEGE, DTPHX

Contact: <http://uc.asu.edu/>

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 major, reference the Major Map listed below.

Language Requirement: N | Program Fee: N

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

Additional Admissions Requirements: This is not a degree granting major. Students with more than 45 transfer hours will not be admitted to this major and should select a different major on the application for admission.

Exploratory Math, Physical Sciences, Engineering and Technology

UCEMTPEXPL

UNIVERSITY COLLEGE, DTPHX

Contact: <http://uc.asu.edu/>

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 major, reference the Major Map listed below.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

Additional Admissions Requirements: This is not a degree granting major. Students with more than 45 transfer hours will not be admitted to this major and should select a different major on the application for admission.

Exploratory Social and Behavioral Sciences UCSBSEXPL

UNIVERSITY COLLEGE, DTPHX

Contact: <http://uc.asu.edu/>

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. For a complete list of all majors included in this Exploratory major, reference the Major Map listed below.

Language Requirement: N | *Program Fee:* N

Career Opportunities: Career opportunities are specific to the ultimate major of choice.

Additional Admissions Requirements: This is not a degree granting major. Students with more than 45 transfer hours will not be admitted to this major and should select a different major on the application for admission.