# College of Education 

Division of Curriculum and Instruction ..... 194
Division of Educational Leadership and Policy Studies ..... 202
Division of Psychology in Education ..... 203

## PURPOSE

For students, choosing a professional college is an important step because it establishes the foundation on which a career will be built. The College of Education provides a stimulating, challenging forum wherein scholars and practitioners interact in the discovery and mastery of the science and art of educational endeavors. This balanced approach, in which research and practice are viewed as essential and complementary, enables the college to produce superior educators.

The purposes of the faculty of the College of Education are as follows:

1. to engage in the scholarly, scientific, and professional study of education;
2. to prepare competent professionals who will serve in a variety of critical educational roles;
3. to develop productive scholars who will make significant contributions to the educational literature and to the quality of educational practice; and
4. to serve the education profession at the local, national, and international levels.

In accord with these purposes, the College of Education is committed to producing quality scholarship and research and to excellence in teaching.

Information about the college can be found on the Web at www.coe.asu.edu.

## ORGANIZATION

The College of Education is organized into three divisions. These divisions and their academic program areas are listed below:

Division of Curriculum and Instruction. The Initial Teacher Certification (ITC) program is the largest program in the college, designed to prepare students for teaching positions in early childhood education, elementary education, secondary education, and special education. Support experiences also come from the Division of Psychology in Education and the Division of Educational Leadership and Policy Studies. The program is a blend of on-campus and school-based methods courses. All programs involve professional school-based internships with experienced teachers.

For specific program descriptions, see "Bachelor of Arts in Education," page 187.

The faculty in Curriculum and Instruction are grouped according to their interests into one or more of 10 research clusters. These clusters include curriculum studies; early childhood; equity, diversity, and citizenship; gender; language and literacy; mathematics education; middle level interest; science education; special education and teacher preparation; and professional development. For more information on research clusters and graduate programs, refer to the Graduate Catalog.
Division of Educational Leadership and Policy Studies
Educational Administration and Supervision
Educational Policy Studies
Higher and Postsecondary Education
Social and Philosophical Foundations
Division of Psychology in Education
Counseling Psychology
Counselor Education
Educational Psychology
Learning
Lifespan Developmental Psychology
Measurement, Statistics, and Methodological Studies
School Psychology
Educational Technology
Services to students and the community are provided through various centers and offices.

Southwest Center for Education Equity and Language
Diversity. This center conducts, supports, and promotes research, scholarship, and innovative practice in the linguistic education of minority students in public schools. The center's primary focus is on equity aspects of education in Arizona, especially as they relate to non-native Englishspeaking children and youth. Research, scholarly discourse, and program development activities, aimed at improving language education for minority students in public schools, serve the purpose of informing public policy in Arizona and the larger U.S. Southwest region. For more information, call 480/965-7134.

Education Policy Studies Laboratory. Located within the College of Education, the Education Policy Studies Laboratory (EPSL) conducts and coordinates original research in areas such as student performance standards, assessment, curriculum, and commercialism in schools.

L literacy and critical inquiry / MA mathematics / CS computer/statistics/ quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science-general core courses / SQ natural science-quantitative / C cultural diversity in the United States / G global / H historical / See "General Studies," page 83.

College of Education Baccalaureate Degrees and Majors

| Major | Degree | Concentration | Administered By |
| :--- | :--- | :--- | :--- |
| Early Childhood <br> Education | B.A.E. | - | Division of Curriculum and <br> Instruction |
| Elementary Education | B.A.E. | Multilingual/multicultural education | Division of Curriculum and <br> Instruction |
| Secondary Education | B.A.E. | Academic specializations: biological sciences, busi- <br> ness, chemistry, Chicana and Chicano studies, <br> economics, English, family and human develop- <br> ment,* French, geography, German, history, <br> Japanese, mathematics, physical education, physics, <br> political science, social studies, Spanish | Division of Curriculum and <br> Instruction |
| Selected Studies in <br> Education* | B.A.E. | - | College of Education |
| Special Education | B.A.E. | - | Division of Curriculum and |
| Instruction |  |  |  |

[^0]EPSL disseminates its analyses and reports to policy makers and educators and also concentrates on providing the public with readable accounts of research.

EPSL houses two research units - the Commercialism in Education Research Unit (CERU), which is the only national academic research center dedicated to schoolhouse commercialism; and the Education Policy Research Unit (EPRU), which conducts original research and facilitates implementation of educational innovations.

For more information, contact Alex Molnar, director and professor of Educational Leadership and Policy Studies, EDB L1-01, call 480/965-1886, or access the laboratory's Web site at asu.edu/educ/epsl.

Center for Indian Education. The Center for Indian Education serves as a service agency to Native American communities, school districts, and students attending ASU. The center also conducts research on Indian education in Arizona and other states with American Indian populations. For more information, call 480/965-6292.

Office of Student Services. The Office of Student Services assists undergraduate and postbaccalaureate students who are interested in teacher preparation programs. Areas of service include: new student recruitment, academic advising, Initial Teacher Certification admission, academic support, scholarships, retention, teacher placement, and certification assistance. Advice regarding program of study validation, declaration of graduation, petitions to standards, student communication, and high school and community college articulation/relations is also available. For more information, call 480/965-5555.

Office of Professional Field Experiences. Part of the Office of Student Services, the Office of Professional Field Experiences places all teacher preparation students in public schools and similar institutions for internships and student teaching. This office monitors students' progress in their field experiences, provides assistance for pre-service teachers who need intervention to improve performance, sponsors courses for mentor teachers, and conducts research on
student teacher performance in the field. For more information, call 480/965-6255.

Counselor Training Center. The Counselor Training Center provides counseling for ASU students, staff, and the community at large regarding personal, relationship, and career development issues. Counseling is conducted by graduate students in counseling and counseling psychology under the supervision of licensed psychologists. For more information, call 480/965-5067.

Other Units. Other units within the college offering specialized research and educational services include the College of Education Preschool and Technology-Based Learning and Research.

## TEACHER EDUCATION

Programs that prepare students for teacher certification by the state are available to both the undergraduate pursuing a first degree and the individual with a college degree in a noneducation field.

Undergraduate students interested in teacher certification in art, music, or dance enroll through programs offered by the Herberger College of Fine Arts. These students must also meet the same eligibility requirements for admission to the Initial Teacher Certification (ITC) for certification, and a formal application must be submitted to the ITC program. For more information, see "Initial Teacher Certification Professional Program Admission," page 187.

Undergraduate programs leading to the Bachelor of Arts in Education degree are described in the text that follows. For descriptions of graduate degree programs, see the Graduate Catalog. For more information, see the "College of Education Graduate Degrees and Majors" table, page 189.

## ADMISSION

## Preprofessional Admission

Students admitted to ASU during their freshman and sophomore years may also be admitted to the College of Education with preprofessional status. Preprofessional stu-
dents should seek advising within the College of Education through its Office of Student Services, EDB L1-13.

Admission to ASU with preprofessional status in the College of Education does not guarantee admission to the ITC program. Admission to the ITC is a separate process.

## Initial Teacher Certification Professional Program Admission

Students are eligible for consideration for admission to the ITC program, if they meet the following criteria:

1. admission to ASU Main as a degree seeking student;
2. a minimum 2.50 cumulative GPA (ASU GPA and transfer GPA combined);
3. completion of a minimum of 56 credit hours by starting date of the program;
4. completion of ENG 101 and 102, general studies MA and $L$ or SQ/SG requirements with a grade of "C" or higher (courses in progress do not satisfy this requirement);
5. a special application with additional supporting materials (an emphasis on prior experience working with the age group of the certification area sought, paid or volunteer, is vital).
Admission is competitive and not guaranteed to all who satisfy the minimum admission criteria.
Some academic units have additional requirements. Students seeking admission to $\mathrm{K}-8$ or secondary education programs (7-12) should consult the Office of Student Services (480/965-5555) to determine if there are additional admission requirements for these teaching fields.

Application deadlines for most ITC programs are February 1 for fall admission; September 1 for spring admission. The Apprentice Teacher Program (ATP) and Integrated Certification in Teacher Education (INCITE) offer additional admission deadlines. For more information, see "Apprentice Teacher Program (ATP)," page 188, and "Integrated Certification in Teacher Education (INCITE)," page 188. Access the Office of Student Services Web site at coe.asu.edu/osa to download an application.

## Transfer Students

To be considered for admission to the ITC program, transfer students must first be formally admitted to ASU (see "Transfer Applicants," page 60). Transfer students must attend a Transfer Advising Session (TAS). These sessions are provided in groups according to specialization area and conducted by academic advisors. During the TAS, information is provided regarding the university General Studies requirement, course selection and registration in the College of Education, and admission requirements for the Initial Teacher Certification Program. To sign up for a Transfer Advising Session, call the Office of Student Services, 480/ 965-5555. ASU Undergraduate Admissions should receive the application for admission to ASU, transcripts, and other required information at least five months before the ITC application deadline date for the desired ITC admission semester.

Students should access the ASU Education Transfer Guides for optimal course selection on the Web at www.asu.edu/provost/articulation.

## ADVISING

All students pursuing teaching certificates are strongly encouraged to seek early advising from the Office of Student Services in the College of Education, 480/965-5555. Careful planning and early advising in developing an approved program of study are essential if teacher candidates are to complete certification and graduation requirements within the typical 120 -semester-hour undergraduate degree program.

Mandatory Advising. Transfer students are required to meet with an academic advisor before registering for their first semester classes. Freshmen must meet with an advisor before registering for each of their first two semesters.

## DEGREES

## Bachelor of Arts in Education

The faculty in the College of Education offer the Bachelor of Arts in Education (B.A.E.) degree. See the "College of Education Baccalaureate Degrees and Majors" table, page 186, for more information. Candidates for the Bachelor of Arts in Education degree must complete an Initial Teacher Certification (ITC) program offered by the College of Education. Graduates of this program are able to demonstrate proficiency in specified knowledge areas or skills, including the following:

1. principles and application of effective instruction;
2. classroom organization and management;
3. content or subject matter;
4. specific curriculum and teaching strategies;
5. interrelationship of culture and schooling in a multicultural society;
6. human development;
7. communication skills;
8. theories of learning and motivation;
9. assessment and evaluation; and
10. computer literacy.

Each student in the ITC program selects one of 10 programs that provide specialized education and preparation. The program areas are as follows:

1. Apprentice Teacher Program (ATP)
2. Multilingual/Multicultural Education Program
3. Diné Teacher Education Program
4. Early Childhood Interprofessional Program (birth-third grade)
5. Elementary Education Partnership Program
6. Secondary Education (SED) (7-12)
7. Special Education (SPE)
8. Teaching for a Diverse Future (TDF)
9. Integrated Certification in Teacher Education (INCITE) (postbaccalaureate program only)

L literacy and critical inquiry / MA mathematics / CS computer/statistics/ quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science-general core courses / SQ natural science-quantitative / C cultural diversity in the United States / G global / H historical / See "General Studies," page 83.

## COLLEGE OF EDUCATION

10. Teacher Education for Arizona Mathematics and Science (TEAMS) (postbaccalaureate program only).

Apprentice Teacher Program (ATP). ATP is a fast-track certification option that is completed in one calendar year, January through December, with all course work based in the participating schools. The program conforms to the public school calendar, thus extending the academic year for ASU students by eight weeks. Students are engaged in K-5 classroom experiences and ASU classes from 8 a.m. to 4 p.m., Monday through Friday for 46 weeks. The theoretical premises that undergird the ATP program might be called "practice informed by theory" as students are immersed in both "school" and "teacher" cultures throughout their program. Admission for spring semester only. For more information, call 480/965-5555

Multilingual/Multicultural (ML/MC) Program. The ML/ MC program is a four-semester sequence offered in "blocks" with focused field requirements in a professional development school and other bilingual or ESL settings. The bilingual education option prepares teachers to teach elementary students whose primary language is Spanish or a Native American language spoken in Arizona. The ESL option prepares teachers to teach elementary school students from any language background who are still acquiring English as an additional language. Methods courses are divided into BLE or ESL sections, although some course work is planned together to promote collaboration. The program meets Arizona requirements for an elementary education teaching certificate with an endorsement in bilingual education or English as a second language. For more information, call 480/965-5555.

Diné Teacher Education Program. The Diné Teacher Education Program is a collaborative effort between Diné College and the ASU College of Education. All course work is done at the Diné College campus (Tsaile, Arizona) and all field placements are in Navajo bilingual classrooms in Navajo schools. The program is designed to prepare Navajo Teachers to teach in Navajo communities of the Navajo Nation. Graduates qualify for an initial teaching certificate for elementary education and an Arizona endorsement in bilingual education. For more information, call 928/ 724-6819.

## Early Childhood Interprofessional Program (ECD)

(Birth-Third Grade). The early childhood program has a core focus on interprofessional education that includes cross-training. Students work with members of other disciplines and collaborate between and across community programs and university departmental structures to promote a broad-based professional preparation. Students participate in schools and community agencies that also operate crossprofessionally. The early childhood faculty and its community partners work from a child-sensitive, or constructivist approach that emphasizes constructivist theory, multiple points of view, emergent learning, and a developmental, integrative approach to classroom practice. For more information, call 480/965-5555.

## Elementary Education Partnership Program (EED).

Students in the Elementary Education Partnership Program work in three different elementary schools, one each semester, prior to their student teaching. Each semester, or block, includes methods courses that are taught on an elementary school campus through an internship of six hours each week. Students become an integral part of the life of the elementary school, and assignments link the classroom observations and experiences to the content of the methods courses. Faculty from each of the school sites coordinate assignments and activities to ensure a wide range of learning experiences; some assignments are continued across semesters. Optional course content is in place to qualify all students in this program for a provisional ESL certificate. For more information, call 480/965-5555.

Secondary Education (SED) (7-12). 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. Graduates are eligible for secondary certification in grades $7-12$ in one of 25 subject specializations. Fine arts and physical education majors receive a $\mathrm{K}-12$ endorsement. For more information, call 480/965-5555.

Special Education (SPE). The SPE leads to certification in $\mathrm{K}-12$ special education for children with learning disabilities, mild mental retardation, or emotional/behavioral disorders. This program provides preparation in each disability area; however, the student only qualifies for a certificate in one area, which is determined by the area of student teaching placement. A school internship is required for each semester. For more information, call 480/965-4602.

Teaching for a Diverse Future (TDF). TDF enrolls one group of students every other year in the fall semester. The program is based on premises derived from work in anthropology, language acquisition, and cognativist and social interactionist views of the development of mathematical and scientific concepts and curriculum theory. Students work in two elementary schools that honor this perspective throughout the program. Methods courses are distributed across three semesters, and each semester's field experience includes a full-time, two-week immersion. Certification options include a certificate in elementary education, an elementary certificate with an endorsement in bilingual education, or an elementary certificate with an endorsement in ESL. The program is available only in specific fall semesters. For more information, call 480/965-0999

## Integrated Certification in Teacher Education

(INCITE). Integrated Certification in Teacher Education is a flexible program that prepares working adults for teaching. This school-based program offers both secondary education and elementary education options, including a middle school endorsement. All course work is offered during the evening and on weekends. INCITE is designed for postbaccalaureate students only. For more information, call 480/ 965-5555.

## COLLEGE OF EDUCATION

College of Education Graduate Degrees and Majors

| Major | Degree | Concentration | Administered By |
| :---: | :---: | :---: | :---: |
| Counseling | M.C. | - | Division of Psychology in Education |
| Counseling Psychology | Ph.D. | - | Division of Psychology in Education |
| Counselor Education | M.Ed. | - | Division of Psychology in Education |
| Curriculum and Instruction | M.A. | Bilingual education, early childhood education, elementary education, English as a second language, Indian education, language and literacy, mathematics education, science education, secondary education, social studies education | Division of Curriculum and Instruction |
|  | M.Ed. | Bilingual education, early childhood education, elementary education, English as a second language, Indian education, language and literacy, mathematics education, professional studies, science education, secondary education, social studies education | Division of Curriculum and Instruction |
|  | Ed.D. | Bilingual education, curriculum studies, early childhood education, elementary education, ${ }^{3}$ English as a second language, Indian education, language and literacy, mathematics education, science education, secondary education, ${ }^{3}$ social studies education | Division of Curriculum and Instruction |
|  | Ph.D. ${ }^{1}$ | Art education, ${ }^{2}$ curriculum studies, early childhood education, elementary education, English education, exercise and wellness education, ${ }^{4}$ language and literacy, mathematics education, music education, physical education, science education, special education | Interdisciplinary Committee on Curriculum and Instruction |
| Educational Administration and Supervision | M.Ed., Ed.D. | - | Division of Educational Leadership and Policy Studies |
| Educational Leadership and Policy Studies | Ph.D. | - | Division of Educational Leadership and Policy Studies |
| Educational Psychology | M.A., M.Ed. | - | Division of Psychology in Education |
|  | Ph.D. | Learning; lifespan developmental psychology; measurement, statistics, and methodological studies; school psychology | Division of Psychology in Education |
| Educational Technology | M.Ed., Ph.D. | - | Division of Psychology in Education |
| Higher and Postsecondary Education | M.Ed., Ed.D. | Higher education | Division of Educational Leadership and Policy Studies |
| Social and Philosophical Foundations of Education | M.A. | - | Division of Educational <br> Leadership and <br> Policy Studies |
| Special Education | M.A. | - | Division of Curriculum and Instruction |
|  | M.Ed. | Gifted, mildly disabled, multicultural exceptional, severely/multiply disabled | Division of Curriculum and Instruction |

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## COLLEGE OF EDUCATION

Teacher Education for Arizona Mathematics and Science (TEAMS). TEAMS is a year-long, middle grades program leading to secondary certification, middle school endorsement, and a master's degree specializing in mathematics, science, and technology. It is based around technology, field-based experiences, internships, and course work.

For more information, call 480/965-5555.

## Initial Teacher Certification Endorsements

Elementary Education
bilingual education
English as a second language
Secondary Education certification in specific academic specializations $\mathrm{K}-12$ endorsements in fine arts and physical education
Special Education
emotionally disabled
learning disabilities
mental retardation
ITC students in areas other than Special Education complete a common core of courses as well as courses specific to the area or option selected. Early Childhood Education and Elementary Education prepare students for certification by the state in grades K-8. Students who select these majors develop the knowledge and skills needed to teach children from a variety of language, cultural, and developmental backgrounds. The Early Childhood Education concentration prepares students to work in infant programs, preschools, and grades K-3. The Elementary Education Multilingual/ Multicultural (ML/MC) program prepares students to work in bilingual/ESL settings in grades $\mathrm{K}-8$. The Special Education major prepares students to teach mildly handicapped students in diverse settings and for certification in grades $\mathrm{K}-12$ in MR, ED, or LD.

Secondary Education offers programs that prepare students for certification by the state in specific academic subjects in grades $7-12$. Students with teaching majors in the Herberger College of Fine Arts earn the appropriate bachelor's degree from that college.

Courses for the academic specialization are determined by the faculty in the academic discipline. Therefore, students with majors in Secondary Education have two academic advisors: one in the college and department of the academic specialization and one in the Office of Student Services in the College of Education. For more information, refer to "Academic Specializations," page 191.

## UNIVERSITY GRADUATION REQUIREMENTS

In addition to fulfilling college and major requirements, students must meet all university graduation requirements. For more information, see "University Graduation Requirements," page 79.

## General Studies Requirement

All students enrolled in a baccalaureate degree program must satisfy a university requirement of a minimum of 35 hours of approved course work as described in "General Studies," page 83. Note that all three General Studies awareness areas are required. General Studies courses are listed in the "General Studies Courses" table, page 86, in the course
descriptions, in the Schedule of Classes, and in the Summer Sessions Bulletin.

Preprofessional students should complete as many of the General Studies courses as possible before admission to the ITC program. Students are encouraged to consult with an academic advisor to ensure they comply with all necessary requirements.

## COLLEGE DEGREE REQUIREMENTS

A minimum of 120 semester hours are required for the B.A.E. degree in these categories:

1. academic specialization (secondary education);
2. college core requirements (Early Childhood Education, Elementary Education, and Special Education majors only); and
3. ITC.

The College of Education expects its degree candidates to meet individual course assessment standards, field-experience observation criteria, courses required for teacher certification, and other proficiency standards and performance criteria required to demonstrate knowledge and skill in the areas listed under "Bachelor of Arts in Education," page 187.

## Program Requirements

Progress toward the B.A.E. degree involves meeting university, college, and division requirements. The degree program also includes courses and academic content required for teacher certification by the State of Arizona. Students seeking certification in one of the fine arts must complete degree requirements in the Herberger College of Fine Arts and specified courses through the ITC program.

## Declaration of Graduation

A declaration of graduation must be filed during the first semester of enrollment in the ITC program. Preprofessional students completing 87 hours (the university limit for registering without a program of study) who have not been admitted to the program are provided a registration waiver by the College of Education. See "University Graduation Requirements," page 79.

## MAJOR REQUIREMENTS

## Academic Specialization

Courses in the academic specialization give students a greater depth of knowledge in one academic area. A Secondary Education major completes 36 to 60 hours, depending upon the area, in the subject in which the student wishes to be certified; fine arts may require more. Refer to the pages shown in the "Academic Specializations" table, page 191.

## College of Education Core Requirements

The programs that prepare students for teacher certification by the state in elementary education, early childhood education, and special education require students to complete semester hours selected from specific core courses pertinent to the teaching area. Teacher candidates should confer with an academic advisor in the Office of Student Services regarding course selection.

## Initial Teacher Certification program

The Initial Teacher Certification (ITC) program is a foursemester sequential program consisting of 36 to 58 semester hours. Ranging from nine to 16 hours per semester, the courses for one semester must be completed before enrolling in the next semester. In other words, courses for one semester usually may not be taken at the same time as those scheduled for another semester. In addition to ITC courses, students continue completing the General Studies requirement and core requirements or academic specialization requirements through the third semester of the program.

## Selected Studies in Education-B.A.E.

Applications are not being accepted for the major in Selected Studies in Education at this time.

## Field Experience Requirements

In addition to course work, students admitted to the ITC program are required to participate in directed field experiences during each of the four semesters of the program. The field experiences progress from short-term observation and participation to long-term supervised practice teaching.

Students should expect these field experiences to be above and beyond the class times listed in the Schedule of Classes for each semester. Such field experiences typically take place in public schools throughout the greater Phoenix area. Regular attendance is required during all field experiences. Students should plan extra travel time and expect to confer with placement teachers and field facilitators before or after scheduled field experiences. To meet field experience requirements, students must plan to have their own transportation and be available during regular school hours.

Teaching is a highly demanding and extraordinarily complex profession. Students desiring to become teachers must maintain academic standards and demonstrate requisite qualifications for successful teaching, including effective interpersonal skills, basic communication skills, appropriate professional conduct, and satisfactory performance during field experience assignments.

Observation and participation assignments in the schools during first, second, and third semester field experience placements are designed to prepare students for the highly demanding performance-based student teaching during semester four.

Student Teaching. The culminating field experience, called student teaching, occurs in the fourth semester of the ITC program and is a full-day, full-semester obligation. Student teaching is usually possible only during fall and spring semesters.

Admission to Student Teaching (Semester IV). To be admitted to student teaching, a student must have attained a high level of professional standards in previous field experience assignments and meet the following requirements:

1. be in good standing as defined in this policy;
2. completion of any provisional admissions requirement;
3. have no incompletes in ITC courses;
4. complete all ITC courses with a grade of "C" or better; and
5. have an approved declaration of graduation on file.

There are additional requirements for certain programs. Secondary Education majors may have no more than two required courses remaining in the academic specialization and have no more than two courses to complete in General Studies. Students must also receive approval from their specialization advisor.

Elementary and Special Education majors must have completed all core courses, all methods courses, and may only have two additional courses to complete.

## Academic Specializations

| Academic Specialization | Page |
| :---: | :---: |
| Art education ${ }^{1}$ | 282 |
| Biological sciences | 354 |
| Business | - |
| Chemistry | 361 |
| Chicana and Chicano Studies | 364 |
| Dance education ${ }^{1}$ | 297 |
| Economics ${ }^{2}$ | - |
| English | 369 |
| Family and human development ${ }^{3}$ | 379 |
| French | 403 |
| Geography | 383 |
| German | 403 |
| History | 391 |
| Journalism ${ }^{3}$ | 495 |
| Mathematics | 420 |
| Music education ${ }^{4}$ | 302 |
| Physical education | 375 |
| Physics | 438 |
| Political science | 450 |
| Social studies | 464 |
| Spanish | 403 |

1 Art education and dance education concentrations are under corresponding B.F.A. majors.
2 See an advisor for details.
3 Applications are not being accepted at this time.
4 Students focus on either the choral-general music or instrumental music concentration under the B.M. degree.

Students must complete the application to student teach and receive approval from the Office of Professional Field Experiences (EDB L1-14, 480/965-6255) at least 12 weeks before the beginning of the student teaching term. Student teachers must adhere to the calendar, regulations, and philosophy of the schools in which they are placed. Beginning and ending dates for student teaching are determined by the Office of Professional Field Experiences in cooperation with the placement schools. Because student teaching is on a full-day schedule, 8 a.m. to 4 p.m. Monday through Friday for 15 consecutive weeks, student teachers are strongly encouraged to avoid extra activities and course work that

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## COLLEGE OF EDUCATION

would interfere with the heavy demands placed upon them while student teaching.

## ASU EXTENDED CAMPUS

The College of Extended Education was created in 1990 to extend the resources of ASU throughout Maricopa County, the state, and the region. The College of Extended Education is a university-wide college that oversees the ASU Extended Campus and forms partnerships with other ASU colleges, including the College of Education, to meet the instructional and informational needs of a diverse community.
The ASU Extended Campus goes beyond the boundaries of the university's three physical campuses to provide access to quality academic credit and degree programs for working adults through flexible schedules; a vast network of off-campus sites; classes scheduled days, evenings, and weekends; and innovative delivery technologies including television, the Internet, and Independent Learning. The Extended Campus also offers a variety of professional continuing education and community outreach programs.

For more information, see "ASU Extended Campus," page 703, or access the Web site at www.asu.edu/xed.


The ASU Downtown Center plays a key role in the ASU Extended Campus concept.

Tim Trumble photo

## ACADEMIC STANDARDS

## Preprofessional Status

Students admitted to the College of Education on preprofessional status are subject to the general standards of academic good standing of the university. However, students who maintain standards of academic good standing during their freshman and sophomore years do not necessarily qualify for admission to any teacher preparation program offered by the College of Education.

## Professional Program Status

Students admitted to the ITC program within the College of Education must maintain academic standards and demonstrate requisite qualifications for successful teaching, including sound physical and mental health, interpersonal skills, basic communication skills, a positive attitude, appropriate professional conduct, and satisfactory performance in field experiences. Because ITC standards are higher than those for the university, a student who is suspended from the ITC program may still be eligible to enroll in other non-ITC courses.

A copy of the Retention and Disqualification Policy for the ITC program may be obtained from the Office of Student Services, EDB L1-13.

College of Education faculty and placement teachers will routinely review preservice teachers' professional attributes and characteristics to determine if the student is making satisfactory progress at both midterm and final. To maintain good standing, students will need to demonstrate appropriate professional demeanor in field placements and college classes.

Students demonstrating behaviors or characteristics that make it questionable whether they can succeed in the teaching profession are reviewed by the director of the Office of Professional Field Experiences and the assistant dean of the Office of Student Services. If necessary, a review panel composed of faculty members who have had direct involvement with the student is convened. Following this review, the student may be referred to the Division of Curriculum and Instruction Standards and Appeals Committee. The committee's review may result in a decision to disqualify the student or the specification of conditions under which continued participation is permitted, i.e., probation.

Students who wish to appeal decisions of the Division of Curriculum and Instruction Standards and Appeals Committee may do so in writing to the dean of the college or the Main Campus Standards Committee. Any exceptions to the retention and disqualification policies and procedures must be approved by the Division of Curriculum and Instruction Standards and Appeals Committee and the dean of the College of Education.

## Postbaccalaureate Initial Teacher Certification (ITC) Programs

Postbaccalaureate programs prepare students for certification by the state and are designed for those who hold a bachelor's degree in an area other than education. The college offers postbaccalaureate programs in early childhood education, elementary education, secondary education, and special education. (Special education students must qualify for and be concurrently admitted to a master's degree pro-

## COLLEGE OF EDUCATION

gram in special education. For more information, call 480/ 965-4602). Information on postbaccalaureate programs is available through the Office of Student Services, EDB L1-13 (480/965-5555). The office provides academic advising and information regarding requirements, procedures, and deadline dates.

A student who wishes to be considered for entry must meet the College of Education admission requirements for postbaccalaureate programs:

1. an earned bachelor's degree from an accredited institution;
2. a cumulative GPA of 2.50 or higher for the last 60 semester hours of credit earned;
3. submission of a completed application form and supporting materials by the appropriate deadline dates during the semester before admission; and
4. completion of an academic specialization for secondary education (consult the Office of Student Services, EDB L1-13).

Admission is competitive and not guaranteed to all who satisfy the minimum admission criteria.

Some academic units have additional requirements. Students seeking admission to $\mathrm{K}-8$ or secondary education programs (7-12) should consult the Office of Student Services in the College of Education (480/965-5555) to determine if there are additional admission requirements for their teaching fields.

Application deadlines vary. Information and applications can be downloaded via the Web at coe.asu.edu/osa.

## Student Teaching

Students in a postbaccalaureate program for initial teacher certification must file student teaching applications early in the semester before the student teaching term. To be accepted for student teaching, students must:

1. attain a cumulative ASU GPA of 2.50 or higher in required professional education course work;
2. complete all required professional education course work other than one preapproved course that can be taken concurrently with student teaching (Secondary Education students must also receive approval from their academic specialization advisors);
3. remove all academic deficiencies such as grades of "D," "E," or "I" before placement; and
4. obtain a final approval from the Office of Professional Field Experiences (this review considers appropriate professional conduct and satisfactory performance in field settings and academic achievement).

## Certification for Teaching

The curricula for both the undergraduate and postbaccalaureate ITC programs meet the requirements for teacher certification in the State of Arizona.

In addition to the course requirements specified in this catalog, there are other requirements for teacher certification mandated by the State of Arizona including the U.S. Constitution and Arizona Constitution requirement. Some teaching areas have specific math, science, and fine arts requirements. Each student must pass the Arizona Educator Proficiency Assessment, which consists of professional knowledge and subject knowledge tests.

Because these requirements vary over program areas and may be changed at any time, students are encouraged to maintain close contact with the Office of Student Services regarding the most current state certification requirements.

The College of Education is approved by the Arizona Department of Education for the preparation of elementary, secondary, and special education teachers. Students who complete an approved program of study and meet all graduation requirements of the university and the college are recommended for certification to the Arizona Department of Education. The Office of Student Services maintains information about current certification requirements in Arizona and other states. (This information includes fingerprint clearance and passing the Arizona Educator Proficiency Assessment.)
The College of Education also offers courses for certified teachers leading to special endorsements by the Arizona Department of Education. Of special interest are endorsements in the areas of bilingual education, English as a second language (ESL), middle school education, reading, and school library science. The bilingual education endorsement is required of all teachers specifically responsible for providing bilingual instruction. The ESL endorsement is required of all teachers specifically responsible for providing ESL instruction. Students should contact the Office of Student Services for information and advising regarding teaching concentrations or special teaching endorsements.

## Independent Learning Course Work for Credit

It is the general policy of the College of Education not to accept course credit for courses in education taken through Independent Learning. Exceptions to this policy may be approved if the Independent Learning course work has been approved in advance of enrollment in the course by the student's advisor, respective program coordinator, and division director. In all such cases, an appropriate rationale must be submitted with the request to enroll.

## COLLEGE OF EDUCATION (COE)

See the Graduate Catalog for the COE courses.

## Division of Curriculum and Instruction

www.ed.asu.edu/coe/candi 480/965-1644 ED 426

## Carlos Julio Ovando, Director

Professors: Appleton, Baker, Barone, Bitter, Christie, Edelsky, Faltis, Flores, Gryder, Guzzetti, Hudelson, McGowan, Ovando, Piburn, Rutherford, Searfoss, Stahl, Staley, Surbeck, Swadener, Tobin, Zucker

Associate Professors: Anijar, Arias, Benavides, Blumenfeld-Jones, Cohen, Cohn, Di Gangi, Gomez, McCoy, Middleton, Rader, Smith, Vallejo

Assistant Professors: Baek, Fischman, Lamorey, MacSwan, Rolstad, Trujillo, Young

Clinical Associate Professor: Garcia
Clinical Assistant Professor: Christine
Lecturers: Bardsley, Burstein, Cocchiarella, Glass, Hansen, Kortman, Poynor, Spanias, Vogel

## Initial Teacher Preparation Programs

Apprentice Teacher Program (ATP)
Diné Teacher Education Program
Early Childhood Interprofessional Program (birththird grade)
Elementary Education Partnership Program
Integrated Certification in Teacher Education
(INCITE) (for postbaccalaureate students only)
Multilingual/Multicultural (ML/MC) Program
Secondary Education (SED) (7-12)
Special Education (SPE)
Teacher Education for Arizona Mathematics and Science (TEAMS) (for postbaccalaureate students only)
Teaching for a Diverse Future (TDF)
Degrees: B.A.E., M.A., M.Ed., Ed.D., Ph.D.

## DEGREES

## Bachelor of Arts in Education-B.A.E.

The faculty in the Division of Curriculum and Instruction offer several undergraduate academic programs designed to prepare persons to teach effectively in early childhood, elementary, secondary, and special education settings. Concentrations available at the undergraduate level include bilingual education, English as a second language (ESL), and Indian education. Programs in special education lead to Arizona teacher certification in the mentally disabled, emotionally disabled, learning disabilities, and early childhood
education for the disabled. Programs of study leading to special endorsements by the Arizona Department of Education are bilingual education, ESL, middle school education, reading, and school library science.

## GRADUATE PROGRAMS

The faculty in the Division of Curriculum and Instruction offer several graduate degrees in a number of majors.

See the "College of Education Graduate Degrees and Majors" table, page 189, and the Graduate Catalog.

## BILINGUAL EDUCATION (BLE)

BLE 335 Language Diversity in Classrooms. (3)
fall and spring
Issues in sociolinguistics and language variation in schools with a focus on classroom interaction, instruction, curriculum, assessment, and language policy. Lecture, discussion, lab. Corequisites: RDG 414, 481.

BLE 400 Principles of Language Minority Education. (3) fall and spring
Overview of philosophical and theoretical foundations of bilingual education and ESL models of instruction. Other topics include significant legislative and judicial measures. Lecture, small group discussion. Prerequisite: ITC admission.
BLE 409 Language-Sensitive Content Teaching. (3)
fall and spring
For preservice students seeking K-8 certification and the endorsement in bilingual education or ESL. Lecture, discussion. Prerequisite: ITC admission.
BLE 414 Reading Methods, Management, and Assessment in BLE/ESL Settings. (3)
fall and spring
Teaching and assessing reading with emphasis on integrated curriculum and literature-based instruction for BLE/ESL learners. Strategies for decoding (phonics), vocabulary, comprehension, and content area reading. Lecture, lab, discussion. Prerequisite: ITC admission.
BLE 420 Science Methods, Management, and Assessment in BLE/ESL Settings. (3)
fall and spring
Methods, management strategies, and assessment procedures for teaching science to BLE/ESL students in elementary schools. Lecture, lab, discussion. Prerequisite: ITC admission.
BLE 433 Language Arts Methods, Management, and Assessment in Elementary BLE/ESL Settings. (3)
fall and spring
Social nature of oral and written, first- and second-language acquisition and congruent teaching, management, assessment practices in BLE/ESL settings. Lecture, lab, discussion. Prerequisite: ITC admission.
BLE 455 Social Studies Methods, Management, and Assessment in Elementary BLE/ESL Settings. (3)
fall and spring
Examines methods, classroom management strategies, and assessment techniques for social studies instruction in elementary BLE/ESL classes. Lecture, lab, discussion. Prerequisite: ITC admission.
BLE 478 Student Teaching in the Elementary School. (3-15) fall and spring
Supervised teaching in the area of specialization. Synthesized experience in curriculum instruction and classroom management in a BLE/ ESL setting. Fee. Prerequisite: ITC admission.
BLE 480 Mathematics Methods, Management, and Assessment in Elementary BLE/ESL Settings. (3)
fall and spring
Teaching, management, and assessment of mathematics in K-8 BLE/ ESL settings. Lecture, lab, discussion. Prerequisite: ITC admission.
BLE 481 Reading Practicum. (3)
fall and spring
Applies concepts from BLE 414. Supervised school-based experiences in teaching reading to BLE/ESL students. Prerequisite: ITC admission.

BLE 496 Field Experience. (0)
fall and spring
Applies course content in a bilingual/ESL school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. Fee. Prerequisite: ITC admission.
BLE 498 Pro-Seminar. (1-7)
fall and spring
Small-group study and research for advanced students within their majors. Prerequisites: ITC admission; major status in the department (or instructor approval).
BLE 511 Introduction to Language Minority Education. (3)
once a year
Historical, philosophical, theoretical, and pedagogical foundations of language minority education in the United States
BLE 514 Bilingual/Multicultural Aspects of Special Education. (3) spring
Theories and issues related to the education of bilingual and culturally diverse exceptional children.
BLE 515 Instructional Methods for Bilingual Students. (3) fall
Introduces general dual language teaching approaches and assessment strategies. Focuses on the effective teaching of limited-Englishproficient populations. Prerequisite: BLE 511.

## BLE 520 ESL for Children. (3)

spring
Examines approaches to second language development and assessment for children congruent with recent research in second language acquisition in children. Prerequisite: BLE 511.
BLE 521 Primary/Elementary Communication Arts in Bilingual Education. (3)
spring
Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices. Prerequisite: BLE 511

## BLE 522 Literacy/Biliteracy Development. (3) fall

Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (SpanishEnglish emphasis). Lecture, discussion. Cross-listed as RDG 522.
Credit is allowed for only BLE 522 or RDG 522. Prerequisite: BLE 511.
BLE 524 Secondary Sheltered ESL Content Teaching. (3) fall
Teaching and assessing ESL adolescents in the content areas with an emphasis on integrating language acquisition principles with content learning. Lecture, small group work. Corequisite: BLE 541.
BLE 528 Social Studies for Bilingual/ESL Teachers. (3) spring
Provides language and instructional methodologies and assessment strategies relevant to bilingual/multicultural students in social studies content delivered in Spanish and English. Prerequisite: BLE 511.
BLE 533 Literacy in Secondary BLE/ESL Settings. (3) spring
Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings. Lecture, discussion. Cross-listed as RDG 533. Credit is allowed for only BLE 533 or RDG 533. Prerequisite: BLE 511.
BLE 535 Sociolinguistic Issues in Bilingual Education. (3) fall
Survey of major theoretical issues (e.g., language situations, communicative competence, language attitudes) interrelating language, social processes, and bilingual education. Prerequisite: BLE 511.
BLE 541 Nature of Bilingualism/Second Language Acquisition. (3)
once a year
Bilingual and second language acquisition, with emphasis on children and adolescents. Stresses cognitive, social, and cultural aspects. Prerequisite: BLE 511.

BLE 543 Bilingual Education Models. (3)
once a year
Bilingual education programs in other countries; analysis of political, social, economic, and educational implications; practice in planning bilingual education curricula. See also offerings under MCE, SED, SPE, and SPF. Prerequisite: BLE 511.
BLE 561 Parent Involvement in Language Minority Education Programs. (3)
fall and spring
Examines issues, approaches, and strategies for improving parental and community involvement in the schooling of language minority children and youth. Prerequisite: BLE 511.
BLE 565 Literature for Hispanic Youth/Literatura para Jóvenes Hispanoparlantes. (3)
spring
Selects, analyzes, and utilizes literature for Hispanic and Spanishspeaking children and adolescents. Cross-listed as LIS 565. Credit is allowed for only BLE 565 or LIS 565.
BLE 580 Practicum. (1-6)
fall and spring
Provides for practical application in school settings of principles of BLE/ESL. Prerequisite: instructor approval.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56

## BUSINESS EDUCATION (BUE)

BUE 480 Teaching Business Subjects. (3)
spring
Organization and presentation of appropriate content for business subjects in the secondary school.
BUE 481 Technology in Business and Vocational Education. (3) spring in even years
Emerging curricula and instructional technology in business and vocational education. Lecture, hands-on computer instruction.
BUE 501 Principles of Business Education. (3) fall
History, philosophy, principles, and objectives of business and distribu tive education.
BUE 502 Organization and Management of Cooperative Programs. (3)
fall
Work-study programs for business occupations in high schools and community colleges.
BUE 503 Competency-Based Business and Vocational Education. (3)
spring
Development and administration of competency-based individualized programs in business and vocational education.
BUE 505 Current Literature in Business and Vocational Education. (3)
spring
Critical analyses, generalizations, and trends in business and vocational education.
BUE 506 Information Processing for Business and Vocational Teachers. (3)
summer
Development of curriculum and strategies for teaching information processing; hardware/software evaluation and equipment acquisition techniques in business and vocational education.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

L literacy and critical inquiry / MA mathematics / CS computer/statistics quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science—general core courses / SQ natural science—quantitative / C cultural diversity in the United States / G global / H historical / See "General Studies," page 83.

## COLLEGE OF EDUCATION

## CURRICULUM AND INSTRUCTION (DCI)

DCI 302 Principles and Applications of Effective Instruction. (3) fall and spring
Principles of teaching identified by research on teaching effectiveness. Application of principles to classroom practice. Prerequisites: EDP 303; education major.
DCI 396 Field Experience I. (0)
fall and spring
First-semester ITC. Observation and limited participation in a school setting. Focus on observation of development, learning, management, instruction, assessment, and motivation. Requires 4 hours per week.
Fee. Corequisite: semester I of the ITC.

## DCI 397 Field Experience II. (0)

fall
Second-semester ITC. Observation and limited participation in a school setting. Focus on observation of development, learning, management, instruction, assessment, and motivation. Requires 6 hours per week. Fee. Corequisite: semester II of the ITC.

## DCI 510 Teacher as Researcher. (3)

fall, spring, summer
Introduces teacher research as a new research genre; offers teachers guidance on planning and conducting research on their practice. Lecfure, workshop.
DCI 591 Seminar. (1-12)
selected semesters

## DCI 701 Curriculum Theory and Practice. (3)

fall and spring
Curriculum theory and practice as a field of study. Its current orientations and applications, modes of inquiry, and community of scholars and practitioners. Seminar. Corequisite: master's-level curriculum course.
DCI 791 Interdisciplinary Research Seminar. (1-12)
selected semesters
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## EARLY CHILDHOOD EDUCATION (ECD)

ECD 300 Principles of Interprofessional Collaboration. (3) fall and spring
Focuses on the dispositions, experiences, knowledge, and skills necessary for interprofessional collaboration designed for young children and their families. Prerequisite: ITC admission.
ECD 310 Educational Environments: Infants/Toddlers. (3) fall, spring, summer
Organizing, planning, and implementing developmentally appropriate educational practices to provide optimal learning environments for infants and toddlers in group settings.
ECD 314 The Developing Child. (3)

## fall, spring, summer

Examines all aspects of development of children, birth through age 8 with implications for teachers and parents. Requires classroom observation and participation.
ECD 315 Classroom Organization and Guidance in the Early Years. (2)
fall and spring
Develops understanding and application of classroom organization and management principles, strategies, and procedures. Prerequisite: ITC admission.
ECD 322 Communication Arts in Early Childhood Education. (3) fall
Factors affecting language development. Setting conditions for learning in listening, speaking, reading, and writing. Prerequisites: ENG 213 (or its equivalent); postbaccalaureate certification program admission.

ECD 378 Practicum in Early Childhood Development. (3)
fall and spring
Provides a field-based experience in selected early childhood settings (outside the public schools before student teaching). Prerequisite: ECD 314.

ECD 400 Inquiry Into Teaching and Learning. (3)
fall and spring
Foundational basis of the early childhood field, including historical roots, current practices, ethics, models of teaching, and application in early childhood settings. Prerequisite: ITC admission.
ECD 401 Integrated Curriculum and Assessment: Social Studies and Creative Arts. (3)
fall and spring
Presents materials, techniques, and resources for a balanced program of social studies and aesthetic expression appropriate for children in preschool through 3rd grade, with emphasis on the integrated curriculum. Prerequisite: ITC admission.
ECD 402 Integrated Curriculum and Assessment: Math and Science. (3)
fall and spring
Emphasizes developmentally appropriate educational strategies and instructional techniques in teaching mathematics and science to children in preschool through 3rd grade, within an integrated curriculum approach. Prerequisite: ITC admission.
ECD 403 Educational Environments: Preschool/Kindergarten/Primary Grades. (3)
fall and spring
Focuses on interactions between young learners and the physical and social environments encountered in preschool, kindergarten, and primary settings. Prerequisite: ITC admission.
ECD 404 Teaching Reading and Language Arts in Early Child-
hood. (3)
fall and spring
Development of oral and written language from birth to age 8. Describes developmentally appropriate educational strategies for promoting growth in speaking, listening, reading, and writing. Prerequisite: ITC admission.
ECD 405 Practicum in Teaching Reading and Language Arts in
Early Childhood. (2)
fall and spring
Supervised experience teaching reading and language arts at the preschool, kindergarten, and primary-grade (1-3) levels. Developmentally appropriate strategies to promote young children's speaking, listening, reading, and writing abilities. Prerequisite: ITC admission.
ECD 414 Interprofessional Practicum. (3)
fall and spring
Investigates services and agencies available in the local community to parents of children with special needs. Practical experiences with an intermittent seminar format. Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration across multiple agencies and programs. Prerequisite: ITC admission.

## ECD 496 Field Experience. (0)

fall and spring
Applies course content in a preschool through 3rd grade setting.
Emphasizes observation, focus on child-centered curriculum, planning and delivering instruction, and assessment. Fee. Corequisite: ECD 404.

ECD 501 Interprofessional Collaboration. (3) fall
Dispositions, knowledge, experiences, and skills necessary for interprofessional collaboration required of professionals who work with multineed families with young children. Preparation to implement effective strategies and workable plans to support interprofessional collaboration for providing integrative services to young children and their families.
ECD 521 Primary/Elementary Communication Arts in Bilingual Education. (3)
spring
Examines bilingual/biliterate development of elementary school children, bringing together native and second language, oral language, and literacy development findings with educational practices. Prerequisite: BLE 511.
ECD 522 Developmental Social Experiences in Early Childhood Education. (3)
fall
Materials, techniques, aesthetic expression, creative activities, and values in the integrated curriculum.

## ECD 525 Emergent Literacy. (3)

## spring

Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3. Lecture, discussion. Cross-listed as RDG 525. Credit is allowed for only ECD 525 or RDG 525.
ECD 527 Mathematics in Early Childhood Education. (3) fall
Theory and practice in the use of manipulative materials for teaching mathematics to preschool and primary grade children. Prerequisite: ECD 402 (or its equivalent)
ECD 544 Play Education. (3)
spring and summer
Theories of play and the educational implications of each. Practical applications at the early childhood level.
ECD 555 Modern Practices in Early Childhood Education. (3)
fall and summer
Trends and practices, instructional and resource materials, and methods and techniques in early childhood education.
ECD 601 Theories and Issues in Early Childhood Education. (3) fall and summer
Current theories and issues in early childhood education. Presents issues of early childhood best practices, policy, theory, research, and evaluation that are of significance to the early childhood professional Highlights building on the child development conceptual framework as related to theory and practice.
ECD 733 Social and Emotional Development. (3)
once a year
Inquiry into the social and emotional development dynamics in children, such as peer relationships, self-concept, and parenting processes, with implications for teachers.
ECD 744 Evaluative Procedures: Young Children. (3) spring
Critical examination and use of developmentally appropriate evalua tive procedures for children from birth through age 8.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## ELEMENTARY EDUCATION (EED)

EED 334 Children's Literature and Elementary School Curriculum. (3)
fall and spring
Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations. Lecture, discussion, lab. Cross-listed as RDG 334. Credit is allowed for only EED 334 or RDG 334. Prerequisite: professional program admission. Corequisite: DCI 396 or EED 496.
EED 420 Science Methods, Management, and Assessment in the Elementary School. (3)
fall and spring
Examines philosophies of science and how these relate to the implementation, management, and assessment of science teaching. Lecture, discussion, lab. Fee. Prerequisite: ITC admission.
EED 433 Language Arts Methods, Management, and Assessment in the Elementary School. (3)
fall and spring
Theory on the social nature of oral and written language and congruent teaching, management, and assessment practices. Lecture, discussion, lab. Corequisite: EED 455.
EED 444 Organizing the Classroom Culture. (1)
fall and spring
Examines how teachers can create and maintain a classroom learning community within the context of an elementary school program. Discussion, workshop, lab. Prerequisite: ITC admission.
EED 455 Social Studies Methods, Management, and Assessment in the Elementary School. (3)
fall and spring
Teaching methods, classroom management strategies, and assessment techniques for social studies instruction in the elementary grades. Lecture, discussion, lab. Prerequisite: ITC admission.

EED 478 Student Teaching in the Elementary School. (3-15) fall and spring
Supervised teaching in the area of specialization. Synthesized experience in curriculum, instruction, and classroom management. Fee. Prerequisite: ITC admission.
EED 480 Mathematics Methods, Management, and Assessment in the Elementary School. (3)
fall and spring
Beginning course in the teaching, management, and assessment of mathematics in grades K-8. Lecture, discussion, lab. Prerequisite: ITC admission

## EED 496 Field Experience. (0)

fall and spring
Applies course content in a $\mathrm{K}-8$ school classroom. Emphasizes observation, pupil management, planning and delivery of instruction, and assessment. Fee.

EED 498 Pro-Seminar. (1-7)
selected semesters
Topics may include the following:

- Language and Learning. (3)

General Studies: L
EED 511 Principles of Curriculum Development. (3)
fall, spring, summer
Contemporary curriculum theories. Curriculum as an interrelated entity. Principles of conceiving and effecting change.
EED 526 Communication Arts in the Elementary School. (3) spring and summer
Critical examination of school language arts teaching, focusing on theoretical assumptions regarding oral- and written-language development.
EED 528 Social Studies in the Elementary School. (3)
fall and summer
Problems and trends of current programs. Development of a balanced and articulated program of social studies.
EED 529 Science in the Elementary School. (3)
spring
Problems and trends of current programs. Development of a balanced and articulated science program.

## EED 530 Outdoor/Environmental Education. (3)

summer
Use of various outdoor settings as laboratories for classroom-related experience, study, observation, inquiry, research, and recreation. Includes strategies and materials for developing environmental literacy.
EED 537 Mathematics in the Elementary School. (3)
fall and summer
Contemporary mathematics teaching. Content, materials, and approaches to instruction.

## EED 538 Teaching Social Studies with Literature. (3)

fall and summer
Develops the rationale, resources, and strategies for adopting a litera-ture-based approach to social studies teaching in grades $\mathrm{K}-8$. Lecture, discussion, cooperative learning. Prerequisite: EED 455 (or its equivalent).
EED 578 Student Teaching in the Elementary School. (3-15) fall and spring
Supervised teaching for postbaccalaureate students, synthesized experience in curriculum, instruction, and classroom management. Fee. Prerequisites: completion of 21 hours of identified course work from an approved program of study; GPA of 2.50 (postbaccalaureate nondegree) or 3.00 (postbaccalaureate degree); approval of the Office of Professional Field Experiences.

L literacy and critical inquiry / MA mathematics / CS computer/statistics quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science-general core courses / SQ natural science-quantitative / C cultural diversity in the United States / G global H historical / See "General Studies," page 83.

## COLLEGE OF EDUCATION

EED 581 Diagnostic Practices in Mathematics. (3)
fall and spring
Specific skills in diagnosing and treating children's learning difficulties in mathematics. Includes practicum experiences, both on and off campus, in identifying strengths and weaknesses and initial remediation.
Prerequisite: instructor approval.
EED 584 Internship. (1-12)
selected semesters
EED 598 Special Topics. (1-4)
selected semesters
Topics may include the following:

- Using Math Manipulatives/Elementary Schools Fee.
- Using Math Manipulatives/Middle Schools

Fee.
EED 720 Language in Education. (3)
once a year
Sociolinguistic seminar on language issues in education, including language acquisition, classroom interaction, language attitudes, relation language, and class-gender ethnicity.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## INDIAN EDUCATION (IED)

## IED 401 Navajo Language and Culture I. (3) <br> fall

History and culture are added components to the introduction of language reading, writing, and speaking. Emphasizes basic communication and appreciation of history and culture. Lecture, discussion.

## IED 403 Navajo Language and Culture II. (3)

spring
Emphasizes communication, grammar, and sentence structures. Translations, reading, writing, and discussions of proper and slang language. Includes cultural activities. Lecture, discussion. Prerequisite: IED 401.
IED 410 History of American Indian Education. (3)
fall and spring
Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society. General Studies: SB, C, H

## IED 422 Methods of Teaching Indian Students. (3)

 springPhilosophies, methodologies, and materials used in Indian education. Examines local and tribal classroom materials. Experimentation with new teaching concepts. Prerequisite: IED 410.
IED 430 Issues in Language and Literacy of Indigenous Peoples. (3)

## spring

Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective.
General Studies: HU/SB, C

## IED 433 Counseling the Indian Student. (3)

 fallTechniques and methods used in counseling, with emphasis on understanding Indian cultures and values. Experimentation with new counseling concepts. Prerequisite: IED 410.
IED 444 The Role of Governments in Native Education Policy and Administration. (3) fall
Examines the interrelationship of federal Indian policy, federal/state/ tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel, program and fiscal management, and resources as they reflect the historic and present influence of this triad of factors. Credit is allowed for only IED 444 or 544. Lecture, seminar.
General Studies: SB

IED 460 Yaqui History and Culture. (3)
fall
Yaqui history and culture ranging from precontact to the present.
Larger themes of Yaqui identity, belief systems, family, traditions, community, resistance, dispersion, and survival.
General Studies: HU/SB, C, H
IED 498 Pro-Seminar. (1-7)
fall and spring
Topics may include the following:

- Navajo Language. (3)

Designed for Navajo and non-Navajo-speaking students who have
little or no knowledge of the Navajo language in its written form.
Emphasizes development of reading, writing, and speaking skills.
IED 500 Administration and Management of Indian Education Programs. (3)
fall
Emphasizes educational leadership research and practice in the schooling of American Indian students. Examines effective practices.

## IED 510 History of American Indian Education. (3)

fall and spring
Philosophical and historical review of the development of American Indian education policies in both traditional and contemporary society.
IED 530 Issues in Language and Literacy of Indigenous Peoples. (3)
spring
Examines issues, policies, theoretical foundations, and practices of indigenous peoples and other language minority communities from a sociolinguistics and language reclamation perspective.
IED 544 The Role of Governments in Native Education Policy and Administration. (3)
fall
Examines the interrelationship of federal Indian policy, federal/state/ tribal law, and tribal sovereignty as they have shaped American Indian education. Analyzes administrative practices and personnel, program and fiscal management, and resources as they reflect the historic and present influence of this triad of factors. Credit is allowed for only IED 544 or 444. Lecture, seminar.

## IED 560 Yaqui History and Culture. (3)

fall
Yaqui history and culture ranging from precontact to the present.
Larger themes of Yaqui identity, belief systems, family, traditions, community, resistance, dispersion, and survival.
IED 594 Workshop in Indian Education. (6)
summer
Examines curriculum, pedagogy, community involvement, current issues, and research.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## LIBRARY SCIENCE (LIS)

LIS 410 Children's Literature. (3)
fall, spring, summer
Selects, analyzes, and utilizes modern and classic literature with young readers.
LIS 510 Computers and Technology in the School Library. (3) fall
Library uses of technology and computers. Fundamental concepts and issues in library media centers. Prerequisites: both LIS 571 and 581 or only instructor approval.
LIS 533 Current Library Problems. (3) fall
Critical analysis of current practices and problems in school librarianship. Prerequisites: a combination of LIS 540 and 561 and 571 and 581 or only instructor approval.
LIS 540 Classification and Cataloging. (3) fall
Descriptive cataloging and Dewey Decimal Classification of print and nonprint library materials.
LIS 561 Selection of Library Materials. (3)
fall
Principles and procedures used in the selection of materials for the school library.

LIS 563 Children's Literature. (3)
fall, spring, summer
Selects and uses children's literature and related nonprint media to support the elementary school curriculum. Cross-listed as RDG 563. Credit is allowed for only LIS 563 or RDG 563.
LIS 565 Literature for Hispanic Youth/Literatura para Jóvenes Hispanoparlantes. (3)
spring
Selects, analyzes, and utilizes literature for Hispanic and Spanishspeaking children and adolescents. Cross-listed as BLE 565. Credit is allowed for only BLE 565 or LIS 565.
LIS 571 Basic Reference Resources. (3)
spring
Provides reference service in the school library. Content and use of basic resources.
LIS 581 School Library Administration. (3)
spring
Administration of $\mathrm{K}-12$ libraries and media centers.
LIS 584 School Library Internship. (1-6)
fall and spring
Prerequisites: LIS 410, 540, 561, 571, 581; instructor approval.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## MULTICULTURAL EDUCATION (MCE)

MCE 446 Understanding the Culturally Diverse Child. (3)
once a year
Survey of cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society.
General Studies: C
MCE 447 Diversity in Families and Communities in Multicultural Settings. (3)
fall and spring
Diversity and the changing role of schools in a multiethnic society. Lecture, simulation activities, discussion.

Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## READING EDUCATION (RDG)

RDG 301 Literacy and Instruction in the Content Areas. (3)
fall, spring, summer
Required course for all Secondary Education candidates. Introduces theory and instructional strategies for learning written and oral texts across academic disciplines. Prerequisite: ITC admission.
RDG 334 Children's Literature and Elementary School Curriculum. (3)
fall and spring
Selecting and using children's literature in various curriculum areas in elementary school classrooms with diverse student populations. Lecture, discussion, lab. Cross-listed as EED 334. Credit is allowed for only EED 334 or RDG 334. Prerequisite: professional program admission. Corequisite: DCI 396 or EED 496.
RDG 414 Teaching Reading/Decoding. (3)
fall and spring
Emphasizes teaching reading as part of an integrated classroom curriculum. Includes strategies and skills for teaching decoding (phonics), vocabulary, comprehension, study skills, and content area reading.
Prerequisite: ITC admission.
RDG 481 Reading Practicum. (3)
fall, spring, summer
Applies concepts from RDG 414 in classroom settings. Students demonstrate teaching strategies under supervision. Required for Elementary Education candidates. Prerequisite: ITC admission.
RDG 494 Special Topics. (1-4)
fall and spring
Topics may include the following:

- Reading/Decoding. (3)

RDG 505 Developmental Reading. (3)
fall, spring, summer
For classroom and special reading teachers. Specific professional skills in decoding, comprehension, and evaluation. Required for Special Reading Endorsement. Prerequisite: teaching certificate.
RDG 507 Content Area Literacy. (3)
fall, spring, summer
Theory, teaching strategies, and practical application concerning learning from text across subject matter disciplines.
RDG 522 Literacy/Biliteracy Development. (3)
fall
Acquaints teachers with first- and second-language literacy research, practice, and assessment in elementary school settings (Spanish-
English emphasis). Lecture, discussion. Cross-listed as BLE 522. Credit is allowed for only BLE 522 or RDG 522. Prerequisite: BLE 511.
RDG 525 Emergent Literacy. (3)

## spring

Examines recent research on oral language and literacy development and effective strategies for teaching language and literacy in prekindergarten to grade 3. Lecture, discussion. Cross-listed as ECD 525. Credit is allowed for only ECD 525 or RDG 525.
RDG 530 Research Issues in Literacy. (3)
spring in odd years
For graduate students interested in research on major issues related to literacy instruction. Seminar activities include reviewing quantitative and qualitative methods and analyzing literacy research. Prerequisite: COE 501 or DCI 510 or EDP 502.
RDG 533 Literacy in Secondary BLE/ESL Settings. (3) spring
Examines first- and second-language literacy research, practice, and assessment across content areas in secondary school settings. Lecture, discussion. Cross-listed as BLE 533. Credit is allowed for only BLE 533 or RDG 533. Prerequisite: BLE 511.
RDG 544 Adolescent Literacy Programs for New Times. (3) selected semesters
Theories, strategies, and issues in developing, implementing, and assessing approaches to literacy instruction for today's diverse adolescent students (grades 7-12). Prerequisite: RDG 507 or instructor approval.
RDG 550 Practicum Experiences in Elementary and Secondary Reading. (3)
spring and summer
Practicum experience utilizing assessment and instructional techniques for classroom settings. See RDG 557 for State of Arizona reading endorsement. Lab. Prerequisite: RDG 505 (or its equivalent).
RDG 556 Assessment and Procedures in Elementary and Secondary Reading. (3)
fall
Techniques for classroom and clinical reading assessment and instruction. Emphasizes continuous assessment. May be taken concurrently with RDG 557. Recommended for State of Arizona reading endorsement. Lecture, lab. Prerequisite: RDG 505.
RDG 557 Advanced Elementary and Secondary Reading Practicum. (3)
spring and summer
Advanced practicum experience utilizing specialized reading and other assessment and instruction techniques for classroom and clinic settings. Lab sections. Recommended for State of Arizona reading endorsement. May be taken concurrently with RDG 556. Lab. Prerequisites: RDG 505; instructor approval.
RDG 563 Children's Literature. (3)
fall, spring, summer
Selects and uses children's literature and related nonprint media to support the elementary school curriculum. Cross-listed as LIS 563. Credit is allowed for only LIS 563 or RDG 563.

L literacy and critical inquiry / MA mathematics / CS computer/statistics quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science-general core courses / SQ natural science-quantitative / C cultural diversity in the United States / G global H historical / See "General Studies," page 83.

## COLLEGE OF EDUCATION

RDG 581 Literature-Based Reading Programs. (3)
fall, spring, summer
For classroom and special reading teachers. The role of literature in the acquisition and development of literacy. Specific suggestions for helping students learn to read and/or expand their reading ability with literature. Introduces literature studies. Prerequisite: teaching certificate.
RDG 582 Practicum: Literature Studies. (3)
spring
Practical application of literature study group principles in field sites or through on-campus simulations. Lecture, supervised practice. Prerequisite: RDG 581 or instructor approval.
RDG 596 Gender, Culture, and Literacies. (3)
spring
Influence of gender and culture on written, oral, and post-typographical texts. Seminar.

## RDG 630 Research in Literacy. (3)

selected semesters
For advanced graduate students interested in applied research problems, literature of literacy instruction, and major issues related to literacy research. Prerequisite: instructor approval.

Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## SECONDARY EDUCATION (SED)

SED 400 Principles of Effective Instruction in Secondary Education. (3)
fall, spring, summer
Examines different models of education. Develops and applies appropriate teaching practices for each model to secondary school classrooms. Lecture, discussion. Prerequisite: ITC admission.
SED 403 Principles, Curricula, and Methods. (3)
fall, spring, summer
Advanced level of development of knowledge and skills of instructional planning and methods of teaching and evaluating in the secondary school. Requires observation/participation. Prerequisite: ITC admission.
SED 478 Student Teaching in Secondary Schools. (3-15) fall and spring
Practice of teaching. Relationship of theory and practice in teaching. Fee. Prerequisite: ITC admission.
SED 480 Special Methods of Teaching Social Studies. (3) fall and spring
Interdisciplinary approaches; production and collection of materials. Prerequisite: ITC admission.

## SED 496 Field Experience. (0)

fall and spring
Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. Fee. Corequisite: SED 403.
SED 501 Introduction to Effective Instruction. (6)
fall, spring, summer
Introductory course for postbaccalaureate certification program in secondary education. Emphasizes developing basic classroom management, instruction, and evaluation. Includes a field assignment of at least 120 hours. Prerequisite: admission to postbaccalaureate certification program
SED 522 Secondary School Curriculum Development. (3)
fall, spring, summer
Social processes, issues, principles, patterns, and procedures in curriculum development.
SED 533 Improving Instruction in Secondary Schools. (3) fall, spring, summer
Analyses of procedures, methods, techniques, and experiments in teaching in secondary schools. Prerequisites: SED 478, 578.
SED 577 Issues and Trends in Secondary Education. (3) selected semesters
Analyses of lay and professional reports; problems and issues in American secondary education. Prerequisites: SED 478, 578.

SED 578 Student Teaching in the Secondary Schools. (3-15)
fall and spring
Practice of teaching. Relationship of theory and practice in teaching. Postbaccalaureate students only. Fee. Prerequisites: completion of approved postbaccalaureate program; minimum 2.50 GPA; approval of the Office of Professional Field Experiences.
SED 588 Human Relations in the Secondary Schools. (3)
once a year
Problems in human relations inherent in the interaction of pupils, teachers, administrators, nonprofessional staff, and laymen. Prerequisites: SED 478, 578.
SED 598 Special Topics. (1-4)
selected semesters
Topics may include the following:

- Using Math Manipulatives/Middle Schools Fee.
SED 711 Secondary Curriculum Development. (3)
spring and summer
Theories and processes of developing curriculum; evaluation of
research. Prerequisites: SED 478, 522 (or its equivalent), 578.
SED 722 Improvement of Instruction in the Secondary School. (3) fall
Evaluates the research; issues and theories related to the improvement of instruction. Prerequisite: SED 533.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

SPECIAL EDUCATION (SPE)
SPE 294 Special Topics. (1-4)
selected semesters
SPE 309 Basic Special Education Curriculum. (3)
fall, spring, summer
Introduces curricular practices used in inclusion classrooms.
SPE 311 Orientation to Education of Exceptional Children. (3) fall, spring, summer
Includes gifted, mildly handicapped, severely handicapped, and the bilingual/multicultural exceptional child.
General Studies: SB
SPE 312 Mental Retardation. (3)
fall, spring, summer
Characteristics and assessment specific to mental retardation. Emphasizes terminology, development, educational programming, and therapeutic procedures. Prerequisite: ITC admission.
SPE 314 Introduction to Bilingual/Multicultural Special Education. (3)
fall, spring, summer
Theoretical background and practical application of general issues regarding the education of bilingual/multicultural handicapped children. Prerequisite: ITC admission.
SPE 336 Behavioral and Emotional Problems in Children. (3)
fall, spring, summer
Characteristics and assessment specific to emotionally and behaviorally disturbed children. Emphasizes terminology, development, and educational programming. Prerequisite: ITC admission.
SPE 361 Introduction to Learning Disabilities. (3)
fall, spring, summer
Characteristics and assessment specific to learning disabilities. Emphasizes terminology, development, and educational programming. Prerequisite: ITC admission.
SPE 394 Special Topics. (1-4)
fall and spring
Topics may include the following:

- Basic Special Education Curriculum. (3)
- Inclusion Practices at the Secondary Level. (3)
- Quality Practices in the Collaborative Classroom. (3)

Prerequisite: ITC admission.
SPE 411 Parent Involvement and Regulatory Issues. (3)
fall and spring
Emphasizes parent and school relations through effective communication and state and federal regulations impacting services for the handicapped. Prerequisite: ITC admission.

SPE 412 Evaluating Exceptional Children. (3)
fall and spring
Normative and criterion-referenced diagnostic techniques, including formative evaluation. Emphasizes application. Requires daily practicum. Prerequisite: ITC admission
SPE 413 Methods in Language, Reading, and Arithmetic for Exceptional Children. (3)
fall and spring
Methods, techniques, and materials for use in prescriptive teaching Requires daily practicum. Prerequisite: ITC admission.
SPE 414 Methods and Strategies in Behavior Management. (3) fall and spring
Organization and delivery of instruction, including formative evaluation techniques. Techniques of behavior management. Requires daily practicum. Prerequisite: ITC admission.
SPE 415 Social Behavior Problems of Exceptional Children. (3) fall and spring
Analysis and intervention into social behavior problems of exceptiona populations. Requires daily practicum. Prerequisite: ITC admission.
SPE 455 Early Childhood and the Handicapped. (3)
fall
Early childhood education as it applies to the handicapped child.
SPE 478 Student Teaching in Special Education. (3-15)
fall and spring
"Y" grade only. Fee. Prerequisite: ITC admission.
SPE 494 Special Topics. (1-4)
fall and spring
Topics may include the following:

- Instruction in Content Areas: Science/Social Studies. (3)

Prerequisite: ITC admission.
SPE 496 Field Experience. (0)
selected semesters
Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. Fee. Prerequisite: ITC admission.
SPE 498 Pro-Seminar. (1-7)
fall and spring
Topics may include the following:

- Field Experience. (1-3)

Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. Fee. Prerequisite: ITC admission.
SPE 510 Inclusionary Curriculum for Special Education Teachers. (3)
fall and summer
Curricular practices used in inclusion classrooms.
SPE 511 The Exceptional Child. (3)
fall, spring, summer
Educational needs of exceptional children and adults. Not recommended for students who have completed SPE 311

## SPE 512 Individuals with Mental Retardation. (3)

fall, spring, summer
Etiology, diagnosis, and management of individuals with mental retardation. Current trends in prevention, programming, and teacher preparation. Not recommended for students who have completed SPE 312.
SPE 514 Bilingual/Multicultural Aspects of Special Education. (3) fall, spring, summer
Theories and issues related to the education of bilingual and culturally diverse exceptional children.
SPE 515 Methods for the Remediation of Learning Problems of Exceptional Children. (3)
spring
Methods and materials for remediating the basic academic problems of exceptional children. Prerequisites: SPE 511; a methods course in teaching reading and mathematics.

## SPE 522 Academic Assessment of Exceptional Children. (3)

 fallNormative and criterion-referenced assessment of learning problems in exceptional children. Includes formative evaluation. Requires practicum. Lecture, practicum. Prerequisites: SPE 311 (or 511); elementary methods courses; program approval.

SPE 523 Prescriptive Teaching with Exceptional Children. (3) fall
Language, reading, and arithmetic methods, techniques, and materials used in individualized instruction. Requires practicum. Lecture, practicum. Prerequisites: SPE 311 (or 511); elementary methods courses; program approval. Pre- or corequisite: SPE 522.
SPE 524 Effective Classroom Behavior Management. (3) spring
Organization and delivery of instruction including formative evaluation and techniques of academic behavior management for exceptional children. Requires practicum. Lecture, practicum. Prerequisites: SPE 311 (or 511), 522, 523; program approval.
SPE 525 Social Behavior Interventions. (3) spring
Analysis and intervention into social behavior problems of exceptional students. Focuses on strategies to change maladaptive social behavior. Requires practicum. Prerequisites: SPE 311 (or 511 or 522 or 523); program approval.

SPE 531 Behavior Management Approaches with Exceptional Children. (3)
fall and summer
Behavior management approaches for classroom behavior of exceptional children. Prerequisite: SPE 511 (or its equivalent).
SPE 536 Characteristics of Children with Behavioral Disorders. (3)
fall, spring, summer
Variables contributing to behavior patterns of behaviorally disordered children.
SPE 551 Teaching Young Children with Special Needs. (3)

## spring

Methods, materials, and curriculum for preschool and primary-aged children with special needs. Prerequisites: SPE 455 and 511 (or their equivalents).
SPE 552 Management of Individuals with Severe Handicaps. (3) spring
Instruction and management of school-aged and adult individuals with severe, physical, or multiple handicaps. Prerequisites: SPE 511 (or its equivalent); instructor approval.
SPE 553 Developmental/Functional Assessment. (3) fall
Teacher-focused developmental/functional assessment of preschool and severely, physically, and multiply handicapped individuals. Requires field experience. Prerequisites: SPE 511 and 512 and 574 (or their equivalents).
SPE 554 The Parent/School Partnership. (3)

## spring

Includes knowledge and procedures for involvement and training of parents and caregivers of preschool and severely handicapped individuals. Requires field experience. Prerequisites: SPE 455 and 511 (or their equivalents).
SPE 561 Characteristics/Diagnosis of Learning Disabilities. (3)
fall, spring, summer
Theories related to learning disabilities, including identification and characteristics
SPE 562 Methods of Teaching Students with Learning Disabilities. (3)
selected semesters
Various methods and intervention strategies for remediating learning disabilities of children and youth. Prerequisite: SPE 361 or 561.
SPE 574 Educational Evaluation of Exceptional Children. (3) fall
Design and statistical considerations of normative and criterion-referenced tests. Collection, recording, and analysis of data from formative evaluation. Prerequisites: SPE 511 (or its equivalent); a methods course in teaching reading and mathematics.

L literacy and critical inquiry / MA mathematics / CS computer/statistics/ quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science-general core courses / SQ natural science-quantitative / C cultural diversity in the United States / G global / H historical / See "General Studies," page 83.

SPE 575 Current Issues in the Education of Exceptional Children. (3) fall
Mainstreaming, noncategorical, financing, legal diagnostic, labeling, legislative, and other critical and controversial issues related to the education of exceptional children.
SPE 577 Mainstreaming Methods. (3)

## spring

Addresses successful mainstreaming methods, practical problemsolving sessions related to teacher's classroom needs, and individual contracts focusing on mainstreaming issues. General educators encouraged.
SPE 578 Student Teaching in Special Education. (3-15) fall and spring
"Y" grade only. Fee. Prerequisites: completion of specified courses; approval by the special education program coordinator.
SPE 582 Classroom Research with Exceptional Children. (3) summer
Introduces interpreting research. Specific research techniques with primary emphasis on classroom research, including applied behavior analysis.
SPE 585 Creativity: Research and Development. (3) spring
Explores nature of creativity in terms of philosophical underpinnings, empirical evidence, human development, self-actualization, and the ecology surrounding the creative event.
SPE 586 Advising the Gifted Child. (3)
once a year
Focuses on educational planning and guidance, social and emotional development, and family problem solving regarding needs of gifted children.
SPE 587 Controversies in Educating the Gifted. (3) fall
In-depth analysis of major controversies in educating the gifted, including nature/nurture, the role of mental tests, and sex differences.
SPE 588 The Gifted Child. (3)
fall and summer
Gifted children's characteristics, identification, needs, school and home environments, definitions, and misunderstandings. Research by Pressey, Stanley, Terman, and others.
SPE 589 Methods in Teaching the Gifted. (3)
spring and summer
Methods in teaching elementary and secondary school gifted children, including individualized and computer-assisted instruction, team teaching. Prerequisite: SPE 588.
SPE 774 Characteristics and Causation of Exceptionality. (3) fall
In-depth analysis of literature pertaining to causes of exceptionality and learning, educational, personal-social, and cognitive characteristics. Lecture, discussion.
SPE 775 Evaluation and Intervention in Special Education. (3) spring
In-depth analysis of research and literature on evaluation procedures and intervention approaches for exceptional individuals at all age levels. Lecture, discussion.
SPE 781 Research and Evaluation in Special Education. (3) spring
Issues and problems in conducting research and/or evaluation programs involving exceptional children.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## Division of Educational Leadership and Policy Studies

www.ed.asu.edu/elps<br>480/965-6357<br>ED 120

Terrence G. Wiley, Director<br>Regents' Professor: Berliner<br>Professors: Appleton, Barone, Fenske, Glass, González, Hanson, Molnar, Norton, Smith, Turner, Valverde, Webb, Wiley<br>Associate Professors: Danzig, Hunnicutt, Margolis, Peña, Rund, Wilkinson<br>Assistant Professors: Moses, Powers<br>Clinical Professor: Dyer<br>Clinical Associate Professor: Macey<br>Research Professor: de los Santos

## PROGRAM AREAS

Educational Administration and Supervision
Educational Policy Studies
Higher and Postsecondary Education
Social and Philosophical Foundations
Degrees: M.A., M.Ed., Ed.D., Ph.D.

## GRADUATE PROGRAMS

The faculty in the Division of Educational Leadership and Policy Studies offer several graduate degrees in a number of majors.

For more information on courses, faculty, and programs, contact the division office or see the Graduate Catalog.

## EDUCATIONAL ADMINISTRATION AND SUPERVISION (EDA)

See the Graduate Catalog for the EDA courses.

## HIGHER AND POSTSECONDARY EDUCATION (HED)

See the Graduate Catalog for the HED courses.

SOCIAL AND PHILOSOPHICAL FOUNDATIONS (SPF)
SPF 301 Culture and Schooling. (3)
fall and spring
For the professional teacher preparation program. Overview of the cultural, social, and political milieus in which formal schooling takes place in the United States. Lecture, recitation. Prerequisite: education major. General Studies: L

SPF 401 Theory and Practice in Education. (1-2)
fall and spring
For the professional teacher preparation program. Analysis and interpretation of classroom behavior from perspectives derived from philosophy, social science, and law. Prerequisite: education major.
SPF 501 Culture and Schooling. (3)
fall and spring
Introduces social science concepts of culture and the cultural milieu in which schooling takes place in the United States. Lecture, recitation.
SPF 510 Introduction to Organization and Administration of

## American Public Schools. (3)

## fall and spring

Explores organizational structure and administration of public education through the application of legal and ethical concepts and relevant information of the social sciences. Cross-listed as EDA 510. Credit is allowed for only EDA 510 or SPF 510.
SPF 511 School and Society. (3)
fall, spring, summer
Interrelationship of school and society and the role of education in social change.
SPF 515 Gender and Education. (3)

## spring

Analyzes relationships of gender and education emphasizing analyses and critiques of traditional conception of knowledge, identity, and feminist theory. Seminar.
SPF 520 Cultural Diversity in Education. (3)

## spring

Philosophic and sociological investigation of cultural diversity in the United States and how it relates to education.
SPF 530 Sociology of Education. (3)
fall
Current issues in the sociology of education: stratification, social mobility.
SPF 533 Comparative Education in the Western World. (3) selected semesters
Educational practices and traditions in the leading nations of Europe and the Soviet Union.
SPF 544 Philosophical Foundations of Education. (3)
fall
Theories of education in ancient, medieval, and modern classical and contemporary philosophies.
SPF 566 History of Education. (3)
spring
Development of educational institutions and ideas in the Western world, from ancient times to the 20th century.
SPF 603 Visual Ethnography in Education. (3)
fall
Advanced qualitative methods class combining ethnography with the use of video and still photography in data gathering and presentation. Seminar. Corequisite: COE 503.
SPF 612 Evaluation Theory. (3)
fall
Explores the major theories of evaluation (inquiry leading to value judgments) in educational policy through examination of cases.
SPF 622 Organizational Theory. (3)

## spring

Major views of organizations and their influence on role definition and participant behaviors in educational organization. Seminar, discussion. Cross-listed as HED 688. Credit is allowed for only HED 688 or SPF 622.
SPF 711 Social and Historical Foundations of Education. (3)

## spring

Explores the history of sociological thought, especially theories of the relations between educational systems and the social/cultural world.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## Division of Psychology in Education

coe.asu.edu/psyched 480/965-3384<br>EDB 302

Elsie G. J. Moore, Director

## Regents' Professors: Berliner, Kulhavy

Professors: Barona, Bernstein, Bitter, Blanchard, Claiborn, Garcia, Glass, Green, Hackett, Horan, Kerr, Kinnier, Klein, Krus, McWhirter, Nelsen, Robinson Kurpius, Santos de Barona, Smith, Strom, Sullivan, Tracey, Zimiles
Associate Professors: Arciniega, Arredondo, Behrens, Brown, Brush, Hood, Moore, Savenye, Stafford

Assistant Professors: Brem, Julian, Kochenderfer Ladd, Nakagawa, Ota Wang, Thompson

Clinical Associate Professor: Homer
Clinical Assistant Professors: Glidden-Tracey, Igoe, Stamm

## PROGRAM AREAS

Counseling Psychology
Counselor Education
Educational Psychology
Learning
Lifespan Developmental Psychology
Measurement, Statistics, and Methodological Studies
School Psychology
Educational Technology
Degrees: M.A., M.C., M.Ed., Ph.D.

## GRADUATE PROGRAMS

The faculty in the Division of Psychology in Education offer graduate degrees in a number of majors.

For more information on courses, faculty, and programs, contact the division office or see the Graduate Catalog.

## COUNSELOR EDUCATION (CED)

CED 111 Exploration of Education. (3)
fall and spring
Education as an instrument in the development of the individual and society, and its significance as an American institution.
General Studies: SB

[^3]
## COLLEGE OF EDUCATION

CED 294 Special Topics. (1-4)
fall and spring
Topics may include the following:

- Career Development. (1-3)
- Foundations of Leadership. (1-3)
- Leadership Colloquium. (1-3)
- Trio. (1-3)

CED 394 Special Topics. (1-4)
fall and spring
Topics may include the following:

- Special Topics in Leadership. (1)

Courses bring together a faculty member with no more than 12 students to discuss and learn about a specific interest or topic. Topics designed to engage students in intellectual dialogue on one of the themes of leadership, diversity, and service/civic responsibility. Pass/fail elective; taught in the classroom of McClintock Residence Hall. Open to freshmen through senior undergraduates; all majors welcome.
CED 484 Internship. (1-12)
fall and spring
Topics may include the following:

- Leadership Internship
- Leadership Internship and Capstone

CED 493 Honors Thesis. (1-6)
fall and spring
CED 494 Special Topics. (1-4)
fall and spring
Topics may include the following:

- Paraprofessional Training. (3)

CED 498 Pro-Seminar. (1-7)

## fall and spring

Topics may include the following:

- Resident Assistant Experience. (2)

CED 512 Introduction to Helping Relationships. (3)
fall, spring, summer
Introduces the skills used in the helping professions and an examines the settings in which they occur.
CED 522 Theories of Counseling and Psychotherapy. (3)
fall, spring, summer
Presents major theories of psychological intervention as well as underlying personality theory upon which they are based.

## CED 523 Psychological Tests. (3)

fall, spring, summer
Standardized tests in the study of the individual, with emphasis on test score interpretation in counseling. Prerequisite: COE 502 (or its equivalent).

## CED 527 Community Counseling. (3)

fall and summer
Community focus with emphasis on outreach, prevention, psychoeducation, consulting, and advocacy from a systematic multicultural perspective. Lecture, discussion, visitations, experiential activities.
CED 534 Occupations and Careers. (3)
fall, spring, summer
The world of work, career development, education, and training for occupational entry and mobility.
CED 545 Analysis of the Individual. (3)
fall, spring, summer
Theory and methods commonly used in studying the individual.
Observational methods, diagnostic interviews, structured, and semistructured methods for assessing personality. Pre- or corequisite:

## CED 523.

CED 567 Group Dynamics and Counseling. (3)
fall, spring, summer
Group process factors, theory, and diversity issues determining effective interaction in small groups. Emphasis placed on lecturettes, self awareness, and experiential components. Lecturettes, discussion, experiential. Prerequisite: admission to graduate degree program.

CED 577 Counseling Prepracticum. (3)
fall, spring, summer
Focus on racial, social, and cultural factors in the development of helping relationships through integration of cognitive and affective selfawareness with counseling skills. Lecture, lab. Prerequisite: admission to M.C. or school counselor certification program. Pre- or corequisite: CED 522.
CED 655 Student Development Programs in Higher Education. (3) once a year
Emerging conceptual models of student development. Overview of student personnel and student affairs programs in community colleges, four-year colleges, and universities. Observation on campuses.

## CED 656 The American College Student. (3)

## spring

Overview of American college student from demographic, background characteristics, and values/attitudes/perspectives. Includes access, persistence, and degree completion. Lecture, group discussion, research projects. Cross-listed as HED 679. Credit is allowed for only CED 656 or HED 679.
CED 672 Marriage and Family Counseling. (3)
fall
Introduces marriage and family counseling theories. Emphasizes a systems-communication model utilizing cocounseling.
CED 684 Internship in Community Counseling. (3-6) fall, spring, summer
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## COUNSELING PSYCHOLOGY (CPY)

See the Graduate Catalog for the CPY courses.
EDUCATIONAL PSYCHOLOGY (EDP)
EDP 301 Learning and Motivation in Education. (2)
fall and spring
Applies learning and motivation principles to education contexts, using a case format. Prerequisite: education major.
EDP 302 Assessment and Evaluation in Education. (1)
fall and spring
Applies assessment and evaluation principles to education contexts, using a case format. Prerequisite: education major.
EDP 303 Human Development. (3)
fall and spring
Selected aspects of child and adolescent development. Emphasizes possibilities for influence by teachers and parents. Prerequisites: CDE 232 (or its equivalent); education major.
General Studies: L

## EDP 310 Educational Psychology. (1-6)

fall, spring, summer
Presents human behavior in educational situations through instructional modules. May be repeated for credit for total of 6 hours.
General Studies: SB

## EDP 313 Childhood and Adolescence. (3)

fall, spring, summer
Principles underlying total development of pre- and early-adolescent children. Emphasizes physical, intellectual, social, and emotional development with practical implications for teachers grades 5-9. Prerequisite: EDP 303 or admission to College of Education postbaccalaureate program.

## EDP 454 Statistical Data Analysis in Education. (3)

fall, spring, summer
Role of data analysis in research and decision making. Elements of exploratory data analysis, descriptive indexes, and statistical inference. Lecture, lab. Prerequisite: MAT 117.
General Studies: CS
EDP 502 Introduction to Data Analysis. (3)
fall, spring, summer
Descriptive statistics, visual approaches, estimation, and inferential methods for univariate and bivariate educational research problems. Experience using statistical software. Cross-listed as COE 502. Credit is allowed for only COE 502 or EDP 502.

EDP 503 Introduction to Qualitative Research. (3)
fall, spring, summer
Terminology, historical development, approaches (including ethnography, ethnomethodology, critical theory, grounded theory, and hermeneutics), and qualitative versus quantitative social sciences; methods of inquiry. Cross-listed as COE 503. Credit is allowed for only COE 503 or EDP 503.

## EDP 504 Learning and Instruction. (3)

fall, spring, summer
Introduces psychology of learning and instruction. Includes the foundations of learning theories and their application to educational practice. Cross-listed as COE 504. Credit is allowed for only COE 504 or EDP 504.

## EDP 510 Essentials of Classroom Learning. (3)

fall, spring, summer
Theoretical and empirical foundations of learning in the classroom milieu. Critical exposure to research and method in instructional psychology.
EDP 513 Child Development. (3)
fall, spring, summer
Examines problems and achievements experienced by children growing up in a technological society. Emphasizes discovering the child's perspective.
EDP 514 Psychology of the Adolescent. (3)
fall, spring, summer
Cognitive, physical, and social development of adolescents in contemporary society. Impact of family, school, and workplace on adolescent development. Prerequisite: EDP 310 or PGS 101 (or its equivalent).
EDP 530 Theoretical Issues and Research in Human Development. (3)
fall
Psychological theories, research, and methods relevant to human development, emphasizing the relations between early development and later performance.
EDP 535 Applied Behavior Analysis. (3) fall
Principles of conditioning as applied to behavior. Current research on the experimental analysis of behavior in educational psychology.
EDP 536 Physiology of Behavioral Disorders. (3)
fall
Critical study of nervous system, brain function for fundamental behaviors, and system dysfunctions in mental/neurological disorders. Prerequisite: instructor approval.

## EDP 540 Theoretical Views of Learning. (3)

fall and spring
Classical and cognitive theories of learning, plus recent orientations. Illustrative experimental and rational foundations; implications for educational practice.

## EDP 542 Research Methods in the Learning Sciences. (3)

 springStudents read, design, and carry out original research in the learning sciences. Lecture, discussion. Prerequisites: EDP 540; instructor approval.

## EDP 544 Psychology of Reading. (3)

fall
Alternate analyses of the reading process; designs and procedures for investigating instructional and noninstructional variables related to reading achievement.
EDP 545 Higher-Order Processes in the Learning Sciences. (3) spring
Examines original research on induction, deduction, analogy and transfer, knowledge representation, and other issues in learning. Discussion. Prerequisite: EDP 540 or instructor approval.
EDP 550 Introduction to Measurement in Education. (3) fall and spring
Nature and types of educational measures. Critiquing and selecting appropriate measuring devices. Constructing measuring devices. Social controversies about tests. Lecture, lab. Prerequisite: EDP 502 or instructor approval.

EDP 552 Multiple Regression and Correlation Methods. (3)
fall, spring, summer
Educational applications of regression techniques. Quantitative and qualitative predictors, curvilinear trends, and interactions. Emphasizes analyzing data and interpreting results. Lecture, lab. Prerequisite: EDP 502 or instructor approval.
EDP 554 Analysis-of-Variance Methods. (3)
fall, spring, summer
Educational applications of ANOVA techniques. Between- and withinsubjects designs, multiple comparisons. Emphasizes using statistical software and interpreting results. Lecture, lab. Prerequisites: EDP 502, 552.

## EDP 556 Data Processing Techniques in Measurement and

Research. (3)
once a year
Use of statistical packages for data analysis. Emphasizes data management, data structures, and related statistical procedures. Lecture, lab. Prerequisite: EDP 552. Pre- or corequisite: EDP 554 or instructor approval.

## EDP 560 Individual Intellectual Assessment. (3)

fall and spring
Issues in administration and interpretation of individual intelligence tests. Theoretical basis, ethical considerations, and diagnostic use of test results. Fee. Prerequisite: admission to a program in professional psychology or instructor approval.
EDP 561 Lab in Psychological Assessment. (3)
spring
Lab experience in administration, scoring, and interpretation of individual intelligence tests. Lab. Prerequisite: admission to a program in professional psychology or instructor approval. Corequisite: EDP 560.
EDP 562 School Psychology: Ethics, Theory, and Practice. (3) fall
Provides information regarding the ethics, history, and theory of current school psychology practice.
EDP 563 Interventions in School Psychology. (3) fall
Examines case-based consultation and consultation research relevant to school psychology practice. Field experience. Prerequisite: school psychology program or instructor approval.

## EDP 564 Academic Interventions. (3)

spring
Skills-building course emphasizing academic interventions and out-come-based educational decisions. Prerequisite: EDP 535.
EDP 566 Diagnosis of Learning Difficulties. (3)
spring
Clinical diagnosis of learning difficulties, emphasizing specific academic problems. Use and interpretation of diagnostic instruments in practical school situations. Prerequisites: EDP 560 and 562 (or their equivalents); instructor approval.
EDP 567 School Psychological Services to Minority Students. (3) spring
Historical perspectives and major issues in psychological and academic assessment and interventions with minority school children.
EDP 568 Diagnosis and Interventions for Children and Adolescents with Emotional Handicaps. (3)
fall
Clinical diagnosis of emotional handicaps in children and adolescents with emphasis on interpretation of diagnostic instruments and designing appropriate interventions in school settings. Lecture, lab. Prerequisites: EDP 566; PSY 578 (or its equivalent).
EDP 651 Methods and Practices of Qualitative Research. (3) spring
Advanced course for students familiar with theory and extant work. Topics include data collection, analysis, reporting, and an extensive fieldwork project. Prerequisite: COE 503.

L literacy and critical inquiry / MA mathematics / CS computer/statistics/ quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science-general core courses / SQ natural science-quantitative / C cultural diversity in the United States / G global / H historical / See "General Studies," page 83.

## COLLEGE OF EDUCATION

EDP 652 Multivariate Procedures for Data Analysis. (3) fall
Educational applications of multivariate methods, including MANOVA, discriminant analysis, and exploratory factor analysis. Emphasizes analyzing data and reporting results. Lecture, lab. Prerequisite: EDP 554 or instructor approval.
EDP 654 Structural Equation Modeling in Educational Research. (3)
spring
Educational applications of confirmatory factor analysis, path analysis, and full latent variable models. Experience in conducting analyses and reporting results. Lecture, lab. Prerequisite: EDP 652 or instructor approval.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.

## EDUCATIONAL TECHNOLOGY (EDT)

## EDT 300 Computers in Education. (1)

fall, spring, summer
Introduces general computer applications, teacher utility programs, World Wide Web, and evaluation of educational software. Required for majors in the College of Education.
EDT 321 Computer Literacy. (3)
fall, spring, summer
Survey of the role of computers in business and education. Laboratory experience in using word processing, database, and spreadsheet software. 2 hours lecture, 2 hours lab.
General Studies: CS
EDT 323 Computer Applications. (3)

## fall, spring, summer

Introduces computer applications such as HyperCard, telecommunications, authoring Languages, and expert systems. Lecture, lab. General Studies: CS
EDT 405 Presentation Technology for Multimedia. (3) fall
Explores multimedia hardware and software used in creating presentations for educational, corporate, and commercial applications.
EDT 406 Computer Graphics and Animation. (3)
spring
Studies and applies design and animation techniques for use in video or computer-based presentations.
EDT 455 Authoring Tools. (3)
fall, spring, summer
Use of current authoring tools to design and deliver computer-based instructional materials.
EDT 501 Foundations and Issues in Educational Technology. (3) fall and spring
Introduction to educational technology. Examines accomplishments and issues in the field.
EDT 502 Design and Development of Instruction. (3)
fall and spring
Design, development, and formative evaluation of objectives-based instructional materials.

## EDT 503 Instructional Media Design. (3)

fall and spring
Uses media selection, design, and production principles to prepare design specifications for solutions to instructional messages and products. Pre- or corequisite: EDT 502.
EDT 504 Development of Computer-Based Instruction. (3) fall and spring
Systematic design, development, and formative evaluation of com-puter-based instruction. Prerequisites: EDT 455 (or instructor approval), 502.
EDT 505 Multimedia Presentation Technologies. (3) fall
Explores the design of multimedia presentations and the utilization of tools and resources to effectively deliver those presentations. Lecture, lab.

EDT 506 Educational Evaluation. (3)
spring
Procedures for evaluating educational programs, training systems, and new-technology applications. Prerequisite: EDT 502
EDT 511 Technology Applications in Education. (3)
fall and summer
Integration and evaluation of emerging technologies into $\mathrm{K}-12$ and adult teaching and learning. Online and lecture.
EDT 520 Educational Technology and Training. (3)
spring
Applications of educational technology to training and human performance systems in business, industry, and government; emphasizing trends and project management. Lecture, lab. Prerequisites: EDT 501, 502.

## EDT 523 Distance Education Theory and Practice.

fall
Explores development of distance learning principles by examining national and international systems and applications. Online and lecture.

## EDT 525 Web Resources for Educators. (3)

spring
Explores Web-based and distance learning applications for educators. Online and lecture.
EDT 527 Instructional Video Production. (3)
spring
Design and production of instructional video. Lecture, lab. Prerequisite: EDT 503 or instructor approval.
EDT 528 Development of Web-Based Instruction. (3)
fall
Design and development of online instruction using advanced technologies. Prerequisite: EDT 502.

## EDT 531 Hypermedia. (3)

fall
Design, development, and evaluation of open-ended, nonlinear com-puter-based tools and applications. Lecture, lab. Prerequisites: EDT 455 (or instructor approval), 502.
EDT 701 Research in Educational Technology. (3)
spring
Review and analysis of research studies in educational technology.
Methodology for designing, conducting, and reporting educational technology research. Prerequisites: EDT 501, 502; instructor approval.
EDT 702 Research in Technology-Based Education. (3)
fall
Critical exposure to theories, research, and methods in technologybased education.
EDT 703 Research in Distance Education. (3)
spring
Seminar with emphasis on research in telecommunications and distance education.
EDT 704 Emerging Technologies in Education. (3)
spring
Examines the role and impact of emerging technologies in education.
EDT 780 Advanced Instructional Development. (3)

## spring

Conducting and documenting selected instructional development activities. Prerequisites: EDT 502; instructor approval.
EDT 792 Advanced Educational Technology Research. (3)
fall and spring
Design and execution of educational technology research on selected topics. Prerequisites: EDT 701; instructor approval.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 56.


[^0]:    * Applications are not being accepted at this time.

[^1]:    1 Program is administered in collaboration with the Graduate College.
    2 This concentration is administered in collaboration with the Herberger College of Fine Arts.
    3 Applications are not being accepted at this time.
    4 Doctoral courses for this interdisciplinary program administered by ASU Main are offered by ASU East.

[^2]:    L literacy and critical inquiry / MA mathematics / CS computer/statistics/ quantitative applications / HU humanities and fine arts / SB social and behavioral sciences / SG natural science-general core courses / SQ natural science-quantitative / C cultural diversity in the United States / G global / H historical / See "General Studies," page 83

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