# College of Teacher Education and Leadership 

## www.west.asu.edu/ctel

Joseph M. Ryan, PhD, Interim Dean

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Secondary Education, Department of ..... 752
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## PURPOSE

The college prepares tomorrow's educators to teach in ever-changing settings through commitment to high standards of innovative teaching, broad-based scholarship, and quality service to the university and the community.

The College of Teacher Education and Leadership balances academic concepts with current research and practices, accompanied by prompt exposure to the classroom environment. This integration of theory with practical experience strengthens future teachers' abilities to refine their instruction skills continually.

Programs in the College of Teacher Education and Leadership offer flexible scheduling and small classes. The college prepares students to be leaders in the field of education.

## ORGANIZATION

The college houses the following academic units:
Department of Elementary Education
Department of Graduate Studies and Professional Development
Department of Secondary Education
Department of Special Education

## DEGREE PROGRAMS

See the "College of Teacher Education and Leadership Baccalaureate Degrees and Majors" table, page 746, and the "College of Teacher Education and Leadership Graduate Degrees and Majors" table, page 756.

## CERTIFICATION PROGRAMS

Education programs are approved by the Arizona Department of Education for the preparation of elementary, secondary, and special education teachers. Other programs of study offered by the faculty of the College of Teacher Education and Leadership include

1. concentrations in bilingual education and English as a second language required for endorsement of teachers specifically responsible for providing bilingual or English as a second language instruction to students in elementary grades;
2. an early childhood concentration that allows students to specialize in teaching kindergarten through grade three;
3. a middle school endorsement for elementary and secondary education students; and
4. at the graduate level, educational administration and supervision courses that meet the state certification requirements for supervision, principalship, and superintendency.

## UNDERGRADUATE PROFESSIONAL TEACHER PREPARATION

## Nature of Program

The College of Teacher Education and Leadership faculty is dedicated to developing and continually improving high quality teacher education programs that support and improve education for all children.

## Career Outlook

The career outlook for the teaching profession is promising in Arizona and the nation. Students seeking endorsements in bilingual and English as a second language, as well as those seeking certification in special education, will find that demand is great in these areas. Demand for elementary and early childhood educators will continue to be strong. In secondary education, demand in the sciences and mathematics will be substantial. There will be more competition for teaching positions in English, history, and social studies at the secondary level. Our education graduates are highly sought after by area school districts.

## GENERAL INFORMATION

## Admission

To be considered for admission as undergraduate education majors, students must

1. be admitted to West campus as a degree-seeking student;
2. complete required postsecondary course work as specified for each major with a grade of " $C$ " (2.00) or higher and attain a cumulative GPA of 2.50 or higher; and
3. submit a completed application form for the desired professional education program to the college Academic Advising Office by the appropriate deadline date.

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 93.

College of Teacher Education and Leadership Baccalaureate Degrees and Majors

| Major | Degree | Concentration* | Administered By |
| :--- | :--- | :--- | :--- |
| Elementary Education | BAE | Optional: bilingual education/English as a second <br> language or early childhood education* | Department of Elementary Education |
| Secondary Education | BAE | Academic specializations: English, history, <br> mathematics, or social studies | Department of Secondary Education |
| Special Education | BAE | - | Department of Special Education |

* If a major offers concentrations, one must be selected unless noted as optional.

Students are considered for admission to undergraduate education programs in the spring of each year for the following fall semester and in the fall of each year for the following spring semester. Applicants should contact the college Academic Advising Office for specific deadlines, which are determined annually.
Admission to undergraduate education programs is selective. Meeting minimum requirements does not ensure admission to any program.

## Transfer

To be considered for admission to an undergraduate education major, prospective students must meet all admission requirements to ASU as well as those for undergraduate education programs. Students must complete the first two years of specified course work at an accredited community college or four-year institution.

Prospective students are discouraged from taking courses on a pass/fail basis. Pass/fail courses may be transferred to the College of Teacher Education and Leadership for only elective credit. For assistance in planning a program of study for transfer to the Bachelor of Arts in Education (BAE) degree program, call the college Academic Advising Office at 602/543-6354.

## Degree Requirements

Students seeking a BAE must satisfactorily complete a minimum of 120 semester hours and attain a cumulative GPA of 2.50 or higher. Specific requirements for majors in Elementary Education, Secondary Education, and Special Education are provided in this catalog.

Education students must file a Declaration of Graduation during the first semester by consulting a college academic advisor. The four semesters of the program are sequential.

The College of Teacher Education and Leadership grades some courses, field experiences, and student teaching on a satisfactory/fail basis. Students who successfully complete these courses receive a grade of "Y" (satisfactory). Such grades are acceptable for meeting program requirements, but these grades are not included in computing the student's GPA.
Any exceptions to these requirements must be approved by a college academic advisor.

## Field-Experience Requirements

In addition to course work, students admitted to all undergraduate education programs are required to participate in structured field experiences during each of the semesters of the program.

The field experiences progress from observation and short-term participation to long-term supervised student 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. The Elementary Education degree program includes at least one semester of field experiences at a local public school campus taken concurrently with university course work. Students should plan extra travel time and expect to confer with mentor teachers and student teacher supervisors before or after scheduled field experiences. Regular attendance is required during all field experiences. To meet field experience requirements, students must plan to have their own transportation and be available during regular school hours.

## Student Teaching

The major field experience, called student teaching, occurs in the last semester and is a full-day, full-semester obligation. Student teaching is possible during only fall and spring semesters.

Applications for student teaching must be completed early in the semester before the student teaching semester and turned in to the Office of Field Experiences. To be accepted for student teaching, students must

1. have a cumulative ASU GPA of 2.50 or higher;
2. have a GPA of 2.50 or higher in professional teacher preparation course work;
3. complete all required professional teacher preparation course work;
4. successfully complete the CTEL Writing Assessment or, for Special Education majors only, successfully complete writing requirements established in a Professional Improvement Plan;
5. remove all academic deficiencies, such as grades of "D" (1.00), "E" (0.00), or "I" before placement;
6. demonstrate appropriate professional conduct; and
7. complete the application procedure and secure approval to teach from the Offices of Field Experiences and Academic Advising before the deadline.
Student teachers must adhere to the calendar, regulations, and philosophy of the schools in which the student teachers are placed. Beginning and ending dates for student teaching are determined by the Office of 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 would interfere with the heavy demands placed upon them while student teaching.

## ACADEMIC POLICIES

Students enrolled in undergraduate education programs are expected to maintain academic standards and demonstrate qualifications for the teaching profession, including mental health, interpersonal skills, basic communication skills, a positive attitude, appropriate professional conduct, and satisfactory performance in field experiences.

To be in good standing, students must maintain an overall cumulative GPA of 2.50 or higher with at least a grade of "C" (2.00) in each undergraduate education course. Any undergraduate education student whose cumulative GPA falls below 2.50 may be placed on academic probation or suspended from enrollment in professional courses for the next semester. Students on academic probation or suspension from the university and/or the College of Teacher Education and Leadership must seek advising from a college academic advisor before registering for additional course work. Probation and/or suspension status for academic reasons begins on the first day of classes of the semester after the probation or suspension action. Students placed on probation or suspension for any reason are subject to disqualification by the College of Teacher Education and Leadership at the end of the following semester if the conditions imposed for reinstatement are not met. Students placed on probation or suspension for any reason are reviewed at the end of the following semester.

Students demonstrating behaviors or characteristics that make it questionable whether they can succeed in the teaching profession may be disqualified or prescribed specific conditions under which continued participation is permitted, that is, probation or suspension.

Students who wish to appeal decisions of the College of Teacher Education and Leadership's Student Issues Committee may do so in writing to the dean of the college. Any exceptions to the above retention and disqualification policies and procedures must be approved by the College of Teacher Education and Leadership's Student Issues Committee and the dean of the college.

Department of Elementary Education
www.west.asu.edu/ctel/elem
602/543-6315
FAB S218

Michael F. Kelley, Chair
Professor: Wetzel
Associate Professors: De La Cruz, Hess, Irwin, Kelley, Ridley, R. Zambo

Assistant Professors: Beardsley, Coulter, Foulger, Hansen, Herold, Hinde, Jimenez-Silva, Kochanoff, Mitchell-Kay, Olson, Osborn-Popp, Perry, D. Zambo

Lecturers: Buscher, Califano, Carter, George, Hurwitz, Larson, Lewallen, Messner, Rojas, Williams

## ELEMENTARY EDUCATION-BAE

## Admission Requirements

To be considered for admission to the Elementary Education major, applicants must

1. complete a minimum of 56 semester hours of course work as outlined at West campus or equivalent courses at another accredited college or university, with a grade of " $C$ " (2.00) or higher and an overall GPA of 2.50 or higher;
2. applicants in bilingual education only must show proficiency in Spanish by
a. a grade of "C" (2.00) or higher in SPA 202 Intermediate Spanish, or
b. a CLEP score of 62 or higher on College Spanish General Examination, or
c. passing scores on all four areas of the Arizona Spanish Proficiency Examination; and
3. submit a completed application form for the Elementary Education degree program to the college Academic Advising Office by the appropriate deadline.

## Required Courses

Choose one of the following combinations ...............................3-6
ENG 101 First-Year Composition (3)
ENG 102 First-Year Composition (3)
ENG 105 Advanced First-Year Composition (3)
CSE 180 Computer Literacy CS. or EDT 321 Computer Literacy CS (3)
HIS 103 The United States $S B, H$. or HIS 104 The United States $S B, H(3)$
MAT 142 College Mathematics MA or higher level math course (3)

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 93.

MTE 180 Theory of Elementary Mathematics. ..... 3

MTE 181 Theory of Elementary Mathematics.............................. 3
SPE 222 Orientation to Education of Exceptional Children $S B$... 3
TEL 111 Exploration of Education $S B$.
.. 3
TEL 212 Understanding the Culturally Diverse Child C....................................................

## Selected Courses

G course ............................................................................................ 3
HU courses........................................................................................ 6
L course............................................................................................ 3
SQ course ......................................................................................... 4
SQ/SG course.................................................................................. 4
Electives ......................................................................................... 6-9
Minimum total ................................................................................. 56
Some General Studies courses may be used to satisfy a General Studies core area requirement and one or two awareness area requirements at the same time, leaving the student more electives. Selected courses and General Studies courses should be chosen in consultation with a college academic advisor. Credit for SPA 101, 102, 201, 202 may also be counted as elective credit toward the 56 -semesterhour requirement.

## Program Requirements

Candidates for the BAE degree in Elementary Education are required to complete an approved program of 120 semester hours. These hours include

1. 56 semester hours of specified lower-division courses for admission;
2. 35 semester hours of General Studies courses;
3. 51 semester hours of specified upper-division course work in professional education; and
4. six semester hours of upper-division content course work selected in consultation with a college academic advisor, including
a. one course from AMS, ENG, GCU, HIS, POL, or

SPA (bilingual education majors only);
b. one course from LSC or PHS; and
c. three semester hours of upper-division elective course work.
The bilingual education concentration requires proficiency in Spanish; the English as a second language concentration requires six semester hours in a single foreign language or its equivalent.

For efficient progress toward the baccalaureate degree, much of this course work must be taken at the lower division and selected so that courses count toward more than one requirement simultaneously. Prospective students are encouraged to contact the college Advising Office to plan their program of study beyond the required course work noted for admission above.

Upper-division, professional education courses include College of Teacher Education and Leadership core curriculum courses, elementary education courses, field experience courses, and student teaching. This course work prepares individuals with abilities and attitudes to work in elementary schools. The combination of course work and field experience is aligned with the Arizona Professional Teaching Standards. Specified courses in elementary education are listed in this section.

## Middle School Endorsement

Students in Elementary Education and bilingual/ESL education may elect to pursue the Middle School endorsement. Those who seek this endorsement must take 24 semester hours of course work in a content area (e.g., English, mathematics, science, social studies). A decision to pursue the Middle School endorsement should be made very early in the pursuit of a degree, certainly before admission to the program. Content course work should be selected in consultation with a college academic advisor. Students electing this option must also take EED 464 Middle School Curriculum and Organization and perform their student teaching at the middle school level.

Elementary Education students should review general information, field experience requirements, student teaching, and academic policies.

## Elementary Education (K-8) Major

## Semester 1

BLE 312 ESL, Diversity, and Culture in Education L.................... 3
TEL 311 Instruction and Management in the Inclusive
Classroom ...................................................................
TEL 313 Educational Technology in the K-12 Curriculum ......... 3
TEL 314 Classroom Assessment.................................................... 3
TEL 315 Child and Adolescent Development $S B$.......................... 3
TEL 396 Field Experience 1 ........................................................... 0
Total ....................................................................................................... 15
Semester 2
BLE 321 ESL Methods for Diverse Language Classrooms ........... 3
EDP 323 Professional Development, Learning, and Motivation... 3
EED 324 Social Studies in Elementary Schools............................ 3
EED 397 Field Experience in Elementary Schools 2 .................... 0
RDG 322 Language Literacy 1 in Elementary Schools .................... 3
Total .............................................................................................. 12
Semester 3
EED 411 Science in Elementary Schools...................................... 3
EED 412 Mathematics in Elementary Schools............................... 3
EED 414 Elementary Curriculum and Organization ..................... 3
or EED 464 Middle School Curriculum and Organization (3)
EED 496 Field Experience 3 ......................................................... 0
RDG 413 Language Literacy 2 in Elementary Schools .................. 3
Total ........................................................................................................... 12
Semester 4
EED 478 Student Teaching in the Elementary School .................. 9 or EED 578 Student Teaching in the Elementary School (9)
EED 479 Capstone Seminar in Elementary Education................... 3
Total ............................................................................................................. 12
Major total...................................................................................... 51

## Elementary Education (K-8) Major with a Concentration in Bilingual Education or English as a Second Language Education

## Semester 1

BLE 312 ESL, Diversity, and Culture in Education L................... 3
TEL 311 Instruction and Management in the Inclusive Classroom
. .3
TEL 313 Educational Technology in the K-12 Curriculum ......... 3
TEL 314 Classroom Assessment................................................... 3
TEL 315 Child and Adolescent Development $S B$.......................... 3
TEL 396 Field Experience 1 .....  0
Total ..... 15
Semester 2
BLE 321 ESL Methods for Diverse Language Classrooms. .....  .3
BLE 322 Second-Language Literacy 1 in Elementary Schools .... 3
BLE 324 Social Studies for Diverse Language Classrooms .. .....  3
EDP 323 Professional Development, Learning, and Motivation... 3
EED 397 Field Experience in Elementary Schools 2. .....  0
Total ..... 12
Semester 3
BLE 413 Second-Language Literacy 2 in Elementary Schools .... 3
BLE 414 Bilingual/ESL Curriculum and Organization ..... 3
EED 411 Science in Elementary Schools .....  3
EED 412 Mathematics in Elementary Schools .....  3
EED 496 Field Experience 3 .....  0
Total ..... 12
Semester 4
BLE 478 Student Teaching in Diverse Language Classrooms .....  9or BLE 578 Student Teaching in Diverse LanguageClassrooms (9)
BLE 479 Capstone Seminar in Bilingual/ESL Education. .....  3
Total ..... 12
Major total ..... 51
Elementary Education (K-8) Major with a Concentration in Early Childhood Education
Semester 1
BLE 312 ESL, Diversity, and Culture in Education $L$ .....  3
TEL 311 Instruction and Management in the Inclusive Classroom .....  3
TEL 313 Educational Technology in the K-12 Curriculum .....  3
TEL 314 Classroom Assessment ..... 3
TEL 315 Child and Adolescent Development $S B$ .....  3
TEL 396 Field Experience 1 .....  0
Total ..... 15
Semester 2
BLE 321 ESL Methods for Diverse Language Classrooms ..... 3
ECD 324 Social Studies and Creative Arts for Primary Level Children. .....  3
EDP 323 Professional Development, Learning, and Motivation... 3
EED 397 Field Experience in Elementary Schools 2. .....  0
RDG 322 Language Literacy 1 in Elementary Schools .....  3
Total ..... 12
Semester 3
ECD 414 Early Childhood Curriculum and Organization. .....  3
EED 411 Science in Elementary Schools ..... 3
EED 412 Mathematics in Elementary Schools .....  3
EED 496 Field Experience 3 .....  0
RDG 413 Language Literacy 2 in Elementary Schools .....  3
Total ..... 12
Semester 4
ECD 479 Capstone Seminar in Early Childhood Education ..... 3
EED 478 Student Teaching in the Elementary School .....  9
or EED 578 Student Teaching in the ElementarySchool (9)
Total ..... 12
Major total ..... 51

## BILINGUAL/BICULTURAL EDUCATION (BLE)

For more BLE courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W BLE 312 ESL, Diversity, and Culture in Education. (3) fall and spring
Examines social, historical, philosophical, and legal issues affecting racially, linguistically, culturally, and exceptionally diverse students in US schools. Prerequisites: ENG 101 (or 105); admission to PTPP or postbaccalaureate programs. General Studies: L
W BLE 321 ESL Methods for Diverse Language Classrooms. (3) fall and spring
Strategies and materials for second-language learning, including research on language acquisition/learning, practical applications of ESL methodologies, phonics. Prerequisite: completion of core curriculum courses. Corequisite: EED 397.
W BLE 322 Second-Language Literacy 1 in Elementary Schools. (3)
fall and spring
Instructional/assessment strategies, including systematic, researchbased phonics, vocabulary, comprehension, spelling, writing, phonemic writing in Spanish/English. Prerequisite: completion of core curriculum courses. Corequisite: EED 397.
W BLE 324 Social Studies for Diverse Language Classrooms. (3) fall and spring
Social studies education standards, curriculum, and instructional strategies for English language learners. Prerequisite: completion of core curriculum courses. Corequisite: EED 397.
W BLE 413 Second-Language Literacy 2 in Elementary Schools. (3)
fall and spring
Literacy and language arts instruction; assessment of reading and writing; transition literacy skills, particularly critical reading of content. Prerequisites: BLE 321, 322, 324; EDP 323; EED 397. Corequisite: EED 496.
W BLE 414 Bilingual/ESL Curriculum and Organization. (3) fall and spring
ESL curriculum content and organization, including program model effectiveness, language assessment and language usage, special needs and parent involvement. Prerequisites: BLE 321, 322, 324; EDP 323; EED 397. Corequisite: EED 496.
W BLE 478 Student Teaching in Diverse Language Classrooms. (9)
fall and spring
Student teaching in diverse language classrooms. Focuses on use of
English language learning and bilingual strategies; integrates all previous course work. Fee. Prerequisites: BLE 413, 414; EED 411, 412, 496. Corequisite: BLE 479.
W BLE 479 Capstone Seminar in Bilingual/ESL Education. (3) fall and spring
Reflective, experience-based integration of theory and practice; professional development for bilingual/ESL teachers. Prerequisites: BLE 413, 414; EED 411, 412, 496. Corequisite: BLE 478 or 578.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63.
Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ catalog on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "GraduateLevel Courses," page 62.

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 93.

## COMPUTER SCIENCE AND ENGINEERING (CSE)

For more CSE courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.

## W CSE 180 Computer Literacy. (3)

fall and spring
Introduces personal computer operations and their place in society. Problem-solving approaches using databases, spreadsheets, and word processing. Lecture, lab, demonstration.
General Studies: CS
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63.

## EARLY CHILDHOOD EDUCATION (ECD)

For more ECD courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W ECD 324 Social Studies and Creative Arts for Primary Level Children. (3)
fall and spring
Social studies and creative arts standards, curriculum, and instructional and assessment strategies for all primary-level children; developmentally appropriate methods and strategies for effective instruction. Prerequisite: completion of core curriculum courses. Corequisite: EED 397.
W ECD 414 Early Childhood Curriculum and Organization. (3) fall and spring
Historical and legal influences on early childhood education; advanced preparation for curriculum designs and developmentally appropriate practices; school organization topics. Prerequisites: BLE 321; ECD 324; EDP 323; EED 397; RDG 322. Corequisite: EED 496.
W ECD 479 Capstone Seminar in Early Childhood Education. (3) fall and spring
Reflective, experienced-based integration of theory and practice; professional development for early childhood teachers. Prerequisites: ECD 414; EED 411, 412, 496; RDG 413. Corequisite: EED 478 or 578.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63. Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.

## EDUCATIONAL PSYCHOLOGY (EDP)

For more EDP courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W EDP 310 Educational Psychology. (3)
selected semesters
Human behavior in educational situations. Individual differences, factors affecting learning, behavioral and cognitive learning, motivation, testing, and assessment.
General Studies: SB
W EDP 323 Professional Development, Learning, and Motivation. (3)
fall and spring
Applies educational psychology principles in classrooms; strategies for building classroom community; learner-centered and intentional teaching; and proactive professional development. Prerequisite: completion of core curriculum courses. Corequisite: EED 397.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63. Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ catalog on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "GraduateLevel Courses," page 62.

## ELEMENTARY EDUCATION (EED)

For more EED courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W EED 324 Social Studies in Elementary Schools. (3)

## fall and spring

Social studies education standards, curriculum, and instructional and assessment strategies for all children. Prerequisite: completion of core curriculum courses. Corequisite: EED 397.
W EED 397 Field Experience in Elementary Schools 2. (0) fall and spring
Observation, instruction, and management of small groups and the whole class. Fee. Prerequisite: completion of core curriculum courses.
W EED 411 Science in Elementary Schools. (3)
fall and spring
Science education standards, curriculum, instructional and assessment strategies for all children. Fee. Prerequisites: BLE 321; EDP 323; EED 397. Corequisite: EED 496.
W EED 412 Mathematics in Elementary Schools. (3)
fall and spring
Methods of teaching mathematics to all students at the K-8 level, instructional planning and assessment. Prerequisites: BLE 321; EDP 323; EED 397. Corequisite: EED 496.
W EED 414 Elementary School Curriculum and Organization. (3)
fall and spring
Rationales for instructional curricula; alternative curriculum designs and broad-based content; selected topics in school governance, finance, and law. Prerequisites: BLE 321; EDP 323; EED 324; RDG 322. Corequisite: EED 496.

W EED 464 Middle-School Curriculum and Organization. (3)
fall and summer
Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment. Cross-listed as SED 464. Credit is allowed for only EED 464 or SED 464. Prerequisite: semester 2 of the PTPP.
W EED 478 Student Teaching in the Elementary School. (9) fall and spring
Student teaching in elementary school classrooms; integration of all previous course work. Fee. Prerequisites: EED 411, 412, 496; RDG 413. Corequisite: ECD 479 or EED 479.

W EED 479 Capstone Seminar in Elementary Education. (3) fall and spring
Reflective, experienced-based integration of theory and practice; professional development for K-8 teachers. Prerequisites: EED 411, 412, 496; RDG 413. Corequisite: EED 478.
W EED 496 Field Experience 3. (0)
fall and spring
Instruction and management of small groups and substantial work with the whole class. Fee. Prerequisites: BLE 321; EDP 323; EED 397.

Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63.
Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ catalog on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "GraduateLevel Courses," page 62.

## MATHEMATICS EDUCATION (MTE)

For more MTE courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W MTE 180 Theory of Elementary Mathematics. (3)
fall and spring
Numbers, number systems, operations on numbers, algebraic reasoning, and problem solving. For prospective elementary and special education majors. Prerequisite: MAT 117 (or 142).

W MTE 181 Mathematics for Elementary Teachers 2. (3)
fall and spring
Data analysis, probability, geometry, and measurement. For prospective Elementary Education and Special Education majors. Prerequisite: MTE 180.
W MTE 380 Arithmetic in the Elementary School. (3)

## selected semesters

Historical numeration systems, overview of elementary number theory, including primes, factorization, divisibility, bases, modular systems, linear congruence, and continued fractions. Prerequisite:
MTE 180 or instructor approval.
W MTE 482 Methods of Teaching Mathematics in Secondary School. (3)
summer
Examines secondary school curricular material and analyzes instructional devices. Teaching strategies, evaluative techniques, diagnosis, and remediation and problem solving. Prerequisite: instructor approval.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63.

## MUSIC EDUCATION (MUE)

For more MUE courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.

## W MUE 310 Music in Early Childhood Education. (3)

## selected semesters

Identifies and understands musical needs of young children. Methods and materials for program development for classroom teachers.

## W MUE 311 Music for the Classroom Teacher. (3)

selected semesters
Develops the classroom music program in the elementary school. No previous music experience or course work required. Not for music majors or minors.
W MUE 464 Music of World Cultures in the Classroom. (3)

## selected semesters

Studies contemporary music of representative cultures within the context of a people's total way of life.

## General Studies: HU, G

Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63.

## READING EDUCATION (RDG)

For more RDG courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W RDG 322 Language Literacy 1 in Elementary Schools. (3) fall and spring
Instructional strategies for teaching reading using systematic researchbased phonics to aid decoding; vocabulary; and comprehension development; writing, speaking, and listening skills. Prerequisite: completion of core curriculum courses. Corequisite: EED 397.
W RDG 323 Literacy Processes in Content Areas. (3)

## fall and spring

Principles and practices for planning subject matter units of instruction that explicitly address learning with texts across academic disciplines. Prerequisite: completion of core curriculum. Corequisite: SED 397.
W RDG 413 Language Literacy 2 in Elementary Schools. (3) fall and spring
Applies literacy strategies, including instruction and diagnostic assessment, literacy lessons with adaptations for diverse learners, extended classroom experiences. Prerequisites: BLE 321; EDP 323; EED 397; RDG 322. Corequisite: EED 496.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63. Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.

## TEACHER EDUCATION AND LEADERSHIP (TEL) Department of Elementary Education

For more TEL courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W TEL 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
W TEL 212 Understanding the Culturally Diverse Child. (3) fall, spring, summer
Surveys cultural and linguistic diversity in American education, including education equity, pluralism, learning styles, and roles of schools in a multiethnic society. Prerequisite: TEL 111. General Studies: C
W TEL 311 Instruction and Management in the Inclusive Classroom. (3)
fall and spring
Planning and delivering instruction, organizing and managing classrooms, and making adaptations for English language learners and students with special needs. Prerequisite: admission to PTPP or postbaccalaureate programs. Corequisite: TEL 396.
W TEL 313 Educational Technology in the K-12 Curriculum. (3) fall and spring
Applies and integrates educational technologies in all curricular areas; examines theoretical and practical issues for diverse learners. Fee. Prerequisite: admission to PTPP or postbaccalaureate programs. Corequisite: TEL 396.
W TEL 314 Classroom Assessment. (3)
fall and spring
Assessment and evaluation of student leaning; emphasizes
integration and adaptation of curriculum, instruction, and evaluation of all students. Prerequisite: admission to PTPP or postbaccalaureate programs. Corequisite: TEL 396.
W TEL 315 Child and Adolescent Development. (3)
fall and spring
Physical, cognitive, social, and emotional development during childhood and adolescence; developmentally appropriate principles and practices to facilitate development for all students. Prerequisite: admission to PTPP or postbaccalaureate programs. Corequisite: TEL 396.
General Studies: SB
W TEL 396 Field Experience I. (0)

## fall and spring

Observation in classrooms and individual and small group instruction. Fee. Prerequisite: admission to PTPP or postbaccalaureate programs.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63.
Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.

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 93.

## Department of Secondary Education

www.west.asu.edu/ctel/sed<br>602/543-6445<br>FAB S5251A

## Peter Rillero, Interim Chair

Professor: Moore
Associate Professor: Rillero
Assistant Professors: Amobi, Onofrey, Wilhelm

## SECONDARY EDUCATION-BAE

## Admission Requirements

To be considered for admission to the Secondary Education major, applicants must complete a minimum of 56 semester hours of course work as outlined below at West campus or equivalent courses at another accredited college or university, with a grade of " $C$ " $(2.00)$ or higher and an overall GPA of 2.50 or higher:

## Required Courses

Choose one of the following combinations 3-6
ENG 101 First-Year Composition (3)
ENG 102 First-Year Composition (3)

$$
--- \text { or }---
$$

ENG 105 Advanced First-Year Composition (3)

## MAT 142 College Mathematics MA.

3or higher level math course (3)
SPE 222 Orientation to Education of Exceptional Children SB ... 3

## Selected Courses

C course .................................................................................... 3
CS course .....  3
G course .....  3
H course ..... 3
HU courses .....  6
L course. .....  3
SB course .....  3
SQ course. .....  4
SQ/SG course. .....  4
Electives ..... 12-15
Minimum total ..... 56

## Program Requirements

Candidates for the BAE degree in Secondary Education are required to complete an approved program of 120 semester hours. These hours include

1. 56 semester hours of specified lower division courses for admission;
2. 35 semester hours of General Studies courses;
3. 37 to 39 semester hours of specified upper-division course work in professional education; and
4. 36 to 39 semester hours of course work in an academic specialization.

Some General Studies courses may be used to satisfy a General Studies core area requirement and one or two awareness area requirements at the same time, leaving the student more electives. Academic specialization courses may be used to fulfill General Studies or elective requirements. Selected courses and General Studies courses should be chosen in consultation with a college Academic Advisor.

Students majoring in Secondary Education should also review general information, field experience requirements, student teaching, and academic policies.

## Secondary Education (7-12) Major

## Semester 1

BLE 312 ESL, Diversity, and Culture in Education L.................... 3
TEL 311 Instruction and Management in the Inclusive $\quad$ Classroom ........................................................... 3
TEL 313 Educational Technology in the K-12 Curriculum .......... 3
TEL 314 Classroom Assessment............................................... 3
TEL 315 Child and Adolescent Development $S B$.......................... 3
TEL 396 Field Experience 1 .......................................................... 0
Total ........................................................................................ 15
Semester 2
RDG 323 Literacy Processes in Content Areas............................. 3
SED 321 Critical Issues in Secondary Education......................... 3
SED 322 Classroom Leadership in Secondary Schools................ 3
SED 397 Field Experience 2 ..................................................... 0
Major methods course................................................................. 3
Total ......................................................................................... 12
Semester 3
SED 478 Student Teaching in the Secondary School............10-12
Major total.........................................................................37-39

## Additional Requirements

Additional course work, taken outside the College of Teacher Education and Leadership, is required for the academic specialization in secondary education. The New College of Interdisciplinary Arts and Sciences offers courses that are required for secondary education certification in four areas: English, history, social studies, and mathematics. Since these four secondary specializations are well supported at the West campus, preference in admissions is given to students applying to these areas. Students majoring in Secondary Education who elect a specialization other than the four offered at West campus must complete a substantial portion of their specialization course work and the major methods course at the Tempe campus. Refer to the pages shown below for descriptions of the academic specializations available at West campus.

## Academic Specialization

| Course | Page |
| :--- | :---: |
| English | 715 |
| History | 717 |
| Mathematics | 726 |
| Social studies | 730 |

## SECONDARY EDUCATION (SED)

For more SED courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.

## W SED 321 Critical Issues in Secondary Education. (3)

## fall and spring

Examines perspectives of critical issues in contemporary education and encourages students to think critically and to develop their own viewpoints. Prerequisite: completion of core curriculum. Corequisite: SED 397.
W SED 322 Classroom Leadership in Secondary Schools. (3) fall and spring
Theories and practices for managing and maintaining secondary classrooms for learning; strategies for home/school communication; and leadership roles for teachers. Prerequisite: completion of core curriculum. Corequisite: SED 397.

## W SED 397 Field Experience 2. (0)

fall and spring
Applies course content in a secondary school setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. Fee. Prerequisite: completion of core curriculum courses.
W SED 464 Middle-School Curriculum and Organization. (3) fall and summer
Educational implications of the characteristics of a diverse adolescent population on middle-level organization and components, curriculum, instructional strategies, assessment. Cross-listed as EED 464. Credit is allowed for only SED 464 or EED 464. Prerequisite: semester 2 of the PTPP.
W SED 478 Student Teaching in the Secondary School. (3-12) fall and spring
The practice of teaching; relationship of theory and practice in teaching. Fee. Prerequisites: 2.50 GPA; completion of all professional course work; approval of Offices of Field Experiences and Academic Advising.
W SED 480 Special Methods of Teaching Social Studies. (3) fall and spring
Interdisciplinary approaches; production and collection of materials.
W SED 481 English Teaching Methods for Secondary Schools. (3) fall and spring
Instructional, organizational, and presentation methods for English in secondary schools. Prerequisite: ENG 312 or 314 or instructor approval.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63. Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.

## Department of Special Education

www.west.asu.edu/ctel/spe
602/543-6380
FAB S252A

Ida Malian, Chair<br>Professor: Malian<br>Associate Professor: Puckett<br>Assistant Professors: Bradshaw, Brady, Renne

## SPECIAL EDUCATION-BAE

## Career Outlook

The career outlook for this teaching profession is promising. Special educators are in high demand in Arizona as well as many other states. Demand is expected to remain strong. Special educators are highly regarded by school districts.
There are also many opportunities for special education program graduates to take positions in $\mathrm{K}-8$ classrooms as graduates may be eligible for elementary education certification. Increasing proportions of school districts practice full inclusion of students with disabilities into general education classes, which increases the demand for qualified special educators.

## Admission Requirements

To be considered for admission to the Special Education major, applicants must complete a minimum of 56 semester hours of course work as outlined at West campus or equivalent courses at another accredited college or university, with a grade of "C" (2.00) or higher and an overall GPA of 2.50 or higher.

## Required Courses

Choose one of the following combinations ...............................3-6
ENG 101 First-Year Composition (3)
ENG 102 First-Year Composition (3)
ENG 105 Advanced First-Year Composition (3)
CSE 180 Computer Literacy CS. $\qquad$
or EDT 321 Computer Literacy CS (3)
HIS 103 The United States $S B, H$........................
or HIS 104 The United States $S B, H$ (3)
MAT 142 College Mathematics $M A$ or higher level math course .. 3
MTE 180 Theory of Elementary Mathematics.............................. 3
MTE 181 Theory of Elementary Mathematics............................. 3
SPE 222 Orientation to Education of Exceptional Children SB ... 3
TEL 111 Exploration of Education SB
TEL 212 Understanding the Culturally Diverse Child C..........................................

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 93.
Selected Courses
G course .....  3
HU courses .....  6
L course. ..... 3
SQ course .....  4
SQ/SG course .....  4
Electives ..... 6-9
Minimum total ..... 56
Some General Studies courses may be used to satisfy aGeneral Studies core area requirement and one or twoawareness area requirements at the same time, leaving thestudent more electives. Selected courses and General Stud-ies courses should be chosen in consultation with a collegeAcademic Advisor.

## Program Requirements

Candidates for the BAE degree in Special Education are required to complete an approved program of 120 semester hours. These hours include

1. 56 semester hours of specified lower-division courses for admission;
2. 35 semester hours of General Studies courses; and
3. 60 semester hours of specified upper-division course work in professional education.
Upper-division, professional education courses include College of Teacher Education and Leadership core curriculum courses, special education courses, field experience courses, and student teaching. This course work prepares individuals with abilities and attitudes to work in special education classrooms. The combination of course work and field experience is aligned with the Arizona Professional Teaching Standards. Special education students should review general information, field experience requirements, student teaching, and academic policies within this catalog.

## Special Education (K-12) Major

## Semester 1

BLE 312 ESL, Diversity, and Culture in Education L.................. 3
TEL 311 Instruction and Management in the Inclusive
TEL 313 Educational Technology in the K-12 Curriculum ......... 3
TEL 314 Classroom Assessment............................................... 3
TEL 315 Child and Adolescent Development $S B$........................ 3
TEL 396 Field Experience I................................................................ 0
Total ......................................................................................... 15
Semester 2
RDG 322 Language Literacy 1 in Elementary Schools ................. 3
SPE 310 Professional Practices in Special Education .................. 3
SPE 317 Special Education for Culturally and Linguistically Diverse Children and Yout
SPE 320 Assessment and Evaluation in Special Education L...... 3
SPE 322 Behavior Management and Consultation...................... 3
SPE 397 Field Experience II............................................................ 0
Total ........................................................................................ 15

## Semester 3

EED 412 Mathematics in Elementary Schools $\qquad$
SPE 318 Family-School Collaboration: An Integrated Approach for Children and Adolescents with Special Needs. $\qquad$

SPE 423 Technology and Instructional Methods in Language, Reading, and Mathematics for Students with Mild/ Moderate Disabilities
SPE 424 Methods in Cross-Categorical Special Education .....  3
SPE 431 Collaborative Teaching Methods for General Education Classroom Environments .....  3
SPE 496 Field Experience III .....  0
Total .....  .15
Semester 4
SPE 478 Student Teaching in Special Education ..... 12
SPE 440 Professional Seminar in Special Education .....  3
Total ..... 15
Major total. ..... 60

## SPECIAL EDUCATION (SPE)

For more SPE courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.

## W SPE 222 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

## W SPE 310 Professional Practices in Special Education. (3)

fall and spring
Emphasizes the roles and professional responsibilities of special educators in all service delivery models. Prerequisite: completion of core curriculum courses. Corequisites: SPE 317, 320, 322, 397. General Studies: L
W SPE 317 Special Education for Culturally and Linguistically Diverse Children and Youth. (3)
fall and spring
General issues and practical applications regarding the education of culturally and linguistically diverse students with disabilities.
Prerequisite: completion of core curriculum courses. Corequisites:
SPE 310, 320, 322, 397.
W SPE 318 Family-School Collaboration: An Integrated Approach for Children and Adolescents with Special Needs. (3) fall and spring
Explores relationships between families of children with special needs and professionals in educational institutions and community agencies. Prerequisite: completion of core curriculum courses. Corequisites: SPE 423, 424, 431, 496.
W SPE 320 Assessment and Evaluation in Special Education. (3)
fall and spring
Norm-referenced, criterion-referenced, and authentic strategies to determine eligibility, plan individualized programs, and monitor progress of students with disabilities. Prerequisites: ENG 101 (or 105); completion of core curriculum courses. Corequisites: SPE 310, 317, 322, 397.
General Studies: L
W SPE 322 Behavior Management and Consultation. (3) fall and spring
Develops and implements analysis, intervention, and consultation strategies for effective management of classroom behavior for students with disabilities. Prerequisite: completion of core curriculum. Corequisites: SPE 310, 317, 320, 397.
W SPE 397 Field Experience II. (0)
fall and spring
Applies course content in a special education setting. Emphasizes observation, pupil management, planning and delivering instruction, and assessment. Fee. Prerequisite: completion of core curriculum. Corequisites: SPE 310, 317, 320, 322.


View of the West campus from Fletcher Library
Arthur Holeman photo

W SPE 423 Technology and Instructional Methods in Language, Reading, and Mathematics for Students with Mild/Moderate Disabilities. (3)
fall and spring
Effective use of technology; instruction and assessment of performance in language, reading, and mathematics for students with mild/moderate disabilities. Prerequisites: SPE 310, 317, 320, 322, 397. Corequisites: SPE 318, 424, 431, 496.

W SPE 424 Methods of Cross-Categorical Special Education. (3) Assessment and instructional methods for students with mild to moderate retardation, learning disability, emotional disabilities, and physical/health impairment. Prerequisites: SPE 310, 317, 320, 322, 397. Corequisites: SPE 318, 423, 431, 496.

## W SPE 431 Collaborative Teaching Methods for General Education Classroom Environments. (3)

fall and spring
Methods and issues in cooperative teaching for special education students in general education classrooms. Prerequisites: SPE 310, 317, 320, 322, 397. Corequisites: SPE 318, 423, 424, 496.
W SPE 440 Professional Seminar in Special Education. (3)

## fall and spring

Examines critical issues in the delivery of special education services. Emphasizes self reflection and professional development.
Prerequisites: SPE 318, 423, 424, 431. Corequisite: 478.

W SPE 478 Student Teaching in Special Education. (12)
fall and spring
Student teaching in special education setting. Fee. Prerequisites: a 2.50 GPA; completion of all professional course work; approval of Offices of Field Experiences and Academic Advising.

## W SPE 496 Field Experience III. (0)

## fall and spring

Applies course content in a special education setting. Emphasizes observation pupil management, planning and delivering instruction, and assessment. Fee. Prerequisites: SPE 310, 317, 320, 322, 397. Corequisites: SPE 318, 423, 424, 431.
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63.
Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.

[^0]College of Teacher Education and Leadership Graduate Degrees and Majors

| Major | Degree | Concentration* | Administered By |
| :--- | :--- | :--- | :--- |
| Educational Administration <br> and Supervision | MEd | - | Department of Graduate Studies and <br> Professional Development |
| Elementary Education | MEd | Optional: bilingual education, educational <br> technology, ESL education, or reading* | Department of Graduate Studies and <br> Professional Development |
| Leadership and Innovation | EdD | Leadership in policy and administration or <br> leadership of teaching innovation | Department of Graduate Studies and <br> Professional Development |
| Secondary Education | MEd | Optional: educational technology* | Department of Graduate Studies and <br> Professional Development |
| Special Education | MEd | Infants and young children | Department of Graduate Studies and <br> Professional Development |

* If a major offers concentrations, one must be selected unless noted as optional.


## Department of Graduate Studies and Professional Development

www.west.asu.edu/ctel/graduate

602/543-3634
FAB S220

Stephen B. Lawton, Chair

See the "College of Teacher Education and Leadership Graduate Degrees and Majors" table, on this page, for programs available at the West campus.
In addition the Department of Graduate Studies and Professional Development offers Master's Programs with Teacher Certification in Elementary, Secondary, and Special Education. Consult the Graduate Catalog for information regarding Master's degree programs and requirements.

## EDUCATIONAL ADMINISTRATION AND SUPERVISION (EDA)

Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.

## EDUCATIONAL TECHNOLOGY (EDT) <br> Department of Elementary Education

For more EDT courses, see the "Course Prefixes" table, or access www.asu.edu/aad/catalogs/courses. The campus designation-D (Downtown Phoenix), E (Polytechnic), M (Tempe), or W (West)—may affect how courses may be used to fulfill requirements.
W EDT 321 Computer Literacy. (3)
fall and spring
Computer software applications. Problem-solving approaches using databases, spreadsheets, word processing, Web publishing, and other current applications. Lecture, lab, demonstration.
General Studies: CS
Omnibus Courses. For an explanation of courses offered but not specifically listed in this catalog, see "Omnibus Courses," page 63. Graduate-Level Courses. For information about courses numbered from 500 to 799, see the Graduate Catalog, or access www.asu.edu/ aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.


[^0]:    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 93.

