All teacher education programs are fully accredited by the Council for the Accreditation of Educator Preparation (CAEP) and by the Oregon Teacher Standards and Practices Commission. Counselor education programs are fully accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

Applicants for teacher and counselor licensure must meet TSPC requirements in effect at the time of admission to a licensure program. Licensure rules are regulated by TSPC and may change. Students should consult regularly with their advisor.

Advising
Early and continuous advising is an important aspect of an education in both the undergraduate and graduate programs in the College of Education.

Scholarships
The College of Education offers a variety of scholarships and fellowships to deserving students. A listing of the many opportunities can be found on the College of Education website (http://education.oregonstate.edu/education-scholarships-and-fellowships/). Additional state and private scholarship information are available at the OSU Office of Financial Aid and Scholarships.

Faculty
Professors Alexander, Buxton, Crisp, Dierking, Dykeman, Ng, Storksdieck
Associate Professors Bouwma-Gearhart, Colomer, Elliott, Kibler, McIntosh, Rowe, Rubel, Thompson
Assistant Professors Arellano, Giamellaro, Nguyen, Reese, Tevis
Clinical Assistant Professors Biles, Cazares-Cervantes, DeMeyer, Ford, LaGue, Muzacz, Schulz

Emeritus Faculty
Falk, Flick, Moule, Niess, Russ-Eft, Stern, Winograd

Program Leads
Andrews, Ford, Massa-Gonzalez, McKiel, Palaniuk, Platt, Roach, Wright

Undergraduate Programs
Majors
• Education (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/)

Options:
• Advanced Mathematics Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/advanced-mathematics-teaching-option/)
• Biology Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/biology-teaching-option/)
• Chemistry Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/chemistry-teaching-option/)

College of Education (CoEd)
The College of Education offers undergraduate and graduate degrees to prepare teachers, counselor educators, educational researchers, and other educational professionals for careers in K-12 schools, community colleges/universities, business and industry, and other post secondary settings. In addition, there are electives for undergraduate students who wish to explore education as a career choice. All programs reflect research-based approaches to education and counseling developed by university faculty.

Authorization and Accreditation
The College of Education is authorized by the State Board of Higher Education to offer teacher education and counseling programs and by the Oregon Teacher Standards and Practices Commission (TSPC) to recommend teacher and counselor candidates for initial licensure. Refer to the listing of endorsements (http://www.tspc.state.or.us/program_list.asp) that OSU is authorized to approve.
• Elementary Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/elementary-teaching-option/)
• Family and Consumer Sciences Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/family-consumer-sciences-teaching-option/)
• Foundational Mathematics Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/foundational-mathematics-teaching-option/)
• Health Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/health-teaching-option/)
• Integrated Science Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/integrated-science-teaching-option/)
• Language Arts Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/language-arts-teaching-option/)
• Physics Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/physics-teaching-option/)
• Social Studies Teaching (http://catalog.oregonstate.edu/college-departments/education/education-ba-bs-hba-hbs/social-studies-teaching-option/)
• Elementary Education (http://catalog.oregonstate.edu/college-departments/education/elementary-education-bs-hbs/)

Minors
• Education (http://catalog.oregonstate.edu/college-departments/education/education-minor/)

Graduate Programs

Majors
• Adult and Higher Education (http://catalog.oregonstate.edu/college-departments/education/adult-higher-education-eddedm-phd/)
  Options:
  • Community College Leadership (http://catalog.oregonstate.edu/college-departments/education/adult-higher-education-eddedm-phd/community-college-leadership-option/)
  • Leadership in Higher Education (http://catalog.oregonstate.edu/college-departments/education/adult-higher-education-eddedm-phd/leadership-higher-education-option/)
• Counseling (http://catalog.oregonstate.edu/college-departments/education/counseling-mcoun-phd/)
  Options:
  • Clinical Mental Health Counseling (http://catalog.oregonstate.edu/college-departments/education/counseling-mcoun-phd/clinical-mental-health-counseling-option/)
  • Counselor Education
• School Counseling (http://catalog.oregonstate.edu/college-departments/education/counseling-mcoun-phd/school-counseling-option/)
• Education (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/)
  Options:
  • Advanced Science and Mathematics Education (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/advanced-science-mathematics-education-option/)
  • Agricultural Education (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/agricultural-education-option/)
  • Free-Choice Learning (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/free-choice-learning-option/)
  • Language Equity and Educational Policy (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/language-equity-educational-policy-option/)
  • Mathematics Education (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/mathematics-education-option/)
  • PK-12 English to Speakers of Other Language (ESOL) (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/pk-12-esol-option/)
• Science Education (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/science-education-option/)
  • Science/Mathematics Education (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/sciencemathematics-education-option/)
• Social Justice Education (http://catalog.oregonstate.edu/college-departments/education/education-eddedm-ms-phd/social-justice-education-option/)
• Teaching (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/)
  Options:
  • Clinically Based Elementary (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/clinically-based-elementary-option/)
  • Elementary (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/elementary-option/)
  • Language Arts (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/language-arts-option/)
  • Mathematics (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/mathematics-option/)
  • Music (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/music-option/)
• Science (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/science-option/)
  • Social Studies (http://catalog.oregonstate.edu/college-departments/education/teaching-mat/social-studies-option/)

Minors
• Adult and Higher Education (http://catalog.oregonstate.edu/college-departments/education/adult-higher-education-graduate-minor/)
• Counseling (http://catalog.oregonstate.edu/college-departments/education/counseling-graduate-minor/)
• Education (http://catalog.oregonstate.edu/college-departments/education/education-graduate-minor/)
• Mathematics Education (http://catalog.oregonstate.edu/college-departments/education/mathematics-education-graduate-minor/)
• Science Education (http://catalog.oregonstate.edu/college-departments/education/science-education-graduate-minor/)

Certificate
• Dual Language Education (http://catalog.oregonstate.edu/college-departments/education/dual-language-education-graduate-certificate/)
• English for Speakers of Other Languages (http://catalog.oregonstate.edu/college-departments/education/english-speakers-other-languages-graduate-certificate/)
• Instructional Design (http://catalog.oregonstate.edu/college-departments/education/instructional-design-graduate-certificate/)

Adult Education and Higher Education Leadership (AHE)

AHE 199, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

AHE 299, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

AHE 399, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

AHE 401, RESEARCH, 1-16 Credits
Equivalent to: ED 401
This course is repeatable for 16 credits.

AHE 402, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: ED 402
This course is repeatable for 16 credits.

AHE 405, READING AND CONFERENCE, 1-16 Credits
Equivalent to: CSSA 405
This course is repeatable for 16 credits.

AHE 406, PROJECTS, 1-16 Credits
Equivalent to: CSSA 406
This course is repeatable for 16 credits.

AHE 407, SEMINAR, 1-16 Credits
Equivalent to: CSSA 407, UEXP 407
This course is repeatable for 16 credits.

AHE 408, WORKSHOP, 1-16 Credits
Equivalent to: CSSA 408
This course is repeatable for 16 credits.

AHE 410, INTERNSHIP/WORK EXPERIENCE, 1-16 Credits
Equivalent to: ED 410
This course is repeatable for 16 credits.

AHE 499, SPECIAL TOPICS, 1-16 Credits
Equivalent to: ED 499
This course is repeatable for 16 credits.

AHE 501, RESEARCH, 1-16 Credits
Equivalent to: CSSA 501, ED 501
This course is repeatable for 16 credits.

AHE 502, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: CSSA 502
This course is repeatable for 16 credits.

AHE 503, THESIS, 1-16 Credits
Equivalent to: CSSA 503
This course is repeatable for 999 credits.

AHE 505, READING AND CONFERENCE, 1-16 Credits
Equivalent to: CSSA 505
This course is repeatable for 16 credits.

AHE 506, PROJECTS, 1-16 Credits
Equivalent to: CSSA 506
This course is repeatable for 16 credits.
Available via Ecampus

AHE 507, SEMINAR, 1-5 Credits
Equivalent to: CSSA 507
This course is repeatable for 16 credits.

AHE 508, WORKSHOP, 1-3 Credits
Equivalent to: CSSA 508
This course is repeatable for 16 credits.

AHE 509, PRACTICUM, 1-16 Credits
Equivalent to: ED 509
This course is repeatable for 16 credits.

AHE 510, INTERNSHIP, 1-18 Credits
By special permission and arrangement.
Equivalent to: ED 510
This course is repeatable for 18 credits.
Available via Ecampus

AHE 517, EDUCATION AND WORK, 3 Credits
Issues related to work in the U.S. and other countries. The role of public, private, corporate, government, military and other education and training programs in meeting changing individual, corporate, and social work-related needs.
Equivalent to: ED 517

AHE 520, MULTICULTURAL ISSUES IN HIGHER EDUCATION, 3 Credits
Developing understanding, knowledge, and skills of multiculturalism affecting the student affairs profession and careers in student affairs administration.
Equivalent to: CSSA 520
AHE 522, INSTRUCTIONAL TECHNOLOGY
I, 1 Credit
Explores technologies used in distance education to deliver content and facilitate active learning through learner creation of digital portfolios and artifacts using online tools and apps.
Corequisites: AHE 553
Available via Ecampus

AHE 523, INSTRUCTIONAL TECHNOLOGY
II, 1 Credit
An overview of best practices in digital-age learning design, including implementation of backward design principles.
Prerequisite: AHE 522 with C or better
Corequisites: AHE 533
Available via Ecampus

AHE 524, INSTRUCTIONAL TECHNOLOGY
III, 1 Credit
Students will develop the knowledge and skills needed to design and create complete online teachings/courses within a learning management system.
Prerequisite: (AHE 522 with C or better and AHE 523 [C])
Corequisites: AHE 531
Available via Ecampus

AHE 525, INSTRUCTIONAL TECHNOLOGY
IV, 1 Credit
Learners will research and demonstrate how to use a current innovative instructional technology, as well as develop skills in understanding trends and preparing for future innovations in instructional technology.
Prerequisite: (AHE 522 with C or better and AHE 523 [C] and AHE 524 [C])
Corequisites: AHE 547
Available via Ecampus

AHE 531, INSTRUCTIONAL DESIGN, 4 Credits
Designed for instructors, trainers, managers, organizational consultants or others who are responsible for the development of programs and courses in community colleges, the workplace or other settings. Using systems concepts and methods, students will learn to design learner-centered instructional programs and courses.
Equivalent to: ED 531
Available via Ecampus

AHE 532, PROGRAM EVALUATION, 4 Credits
Assessing outcomes in college curriculum and workplace training programs from a systems perspective and evaluation of program effectiveness. Particular emphasis on formative and summative evaluation, frameworks for program evaluation, quantitative and qualitative methods and analysis, communicating and reporting evaluation findings, and the ethics and standards of evaluation practice.
Equivalent to: ED 532
Available via Ecampus

AHE 533, NEEDS ASSESSMENT AND RESEARCH, 4 Credits
Introduces workplace learning needs assessment (WLNA) and research principles and practices for individual and collaborative learning groups.
Prerequisite: AHE 553 with C or better
Equivalent to: ED 533
Available via Ecampus

AHE 534, ORGANIZATIONS AND SYSTEMS THEORY, 4 Credits
Introduces principles and practices underlying individual and collaborative work group learning. Participants will learn how to create an environment that promotes effective and efficient workplace learning.
Available via Ecampus

AHE 547, INSTRUCTIONAL STRATEGIES FOR ADULT LEARNERS, 4 Credits
Exploration of and practice using instructional strategies to enhance adult learning. Acquisition of an instructional strategy tool kit as well as a method for evaluating adult learning events.
Equivalent to: ED 547
This course is repeatable for 60 credits.
Available via Ecampus

AHE 549, ETHICAL AND PROFESSIONAL ISSUES, 4 Credits
Focuses on issues facing professionals working with adult learners as well as ethical issues relevant to the practice and scholarship in the field. Combines instruction in inquiry-based teaching methods and learning theory with work in professional settings, such as for-profit and non-profit organizations and government agencies.
Available via Ecampus

AHE 553, ADULT LEARNING & DEVELOPMENT, 4 Credits
Introduce participants to key theories, orientations, models, and principles of learning and development in adulthood.
Equivalent to: ED 553
Available via Ecampus

AHE 567, LEADERSHIP DEVELOPMENT AND HUMAN RELATIONS, 4 Credits
Exploration of multiple theories of leadership in different organizational contexts; synthesize theory with experience to construct a personal framework for leadership practice.
Equivalent to: ED 567
Available via Ecampus

AHE 575, EDUCATIONAL FINANCE, 3 Credits
Finance, budgeting and accounting for sources of revenue; deferral, state and local financing, budgeting and accounting models, practical experience combined with examination of theory, trends and issues. Focus in either public schools, community colleges or higher education through practical experience.
Equivalent to: ED 575
Available via Ecampus
AHE 582, LEGAL ISSUES IN HIGHER EDUCATION, 3 Credits
A comprehensive presentation and discussion of the law governing administration within community colleges and college/universities with a special emphasis on student services administration.
Available via Ecampus

AHE 599, SPECIAL TOPICS, 1-16 Credits
Equivalent to: CSSA 599, ED 599
This course is repeatable for 16 credits.

AHE 601, RESEARCH, 1-16 Credits
Equivalent to: ED 601
This course is repeatable for 16 credits.
Available via Ecampus

AHE 602, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: ED 602
This course is repeatable for 16 credits.
Available via Ecampus

AHE 603, THESIS, 1-16 Credits
Equivalent to: ED 603
This course is repeatable for 999 credits.
Available via Ecampus

AHE 605, RESEARCH ISSUES, 3 Credits
A core course in the College of Education's doctoral program that focuses on research issues.
Prerequisite: (AHE 612 with C or better and AHE 613 [C] and AHE 614 [C])

AHE 606, PROJECTS, 1-16 Credits
Equivalent to: CSSA 606
This course is repeatable for 16 credits.

AHE 607, SEMINAR, 1-16 Credits
Equivalent to: ED 607
This course is repeatable for 16 credits.

AHE 608, WORKSHOP, 1-16 Credits
Equivalent to: ED 608
This course is repeatable for 16 credits.

AHE 609, PRACTICUM CLINICAL EXPERIENCE, 1-16 Credits
Equivalent to: ED 609
This course is repeatable for 16 credits.

AHE 610, INTERNSHIP, 1-15 Credits
Equivalent to: ED 610
This course is repeatable for 15 credits.
Available via Ecampus

AHE 611, QUANTITATIVE ANALYSIS IN EDUCATIONAL RESEARCH I, 3 Credits
Foundational course to methods and statistics used in quantitative educational research. Examines data analysis, statistical procedures, and interpretation of results within postsecondary environments.

AHE 612, RESEARCH PERSPECTIVES IN EDUCATION, 3 Credits
Research perspectives, how they are influenced by worldviews, and how these worldviews influence research.
Equivalent to: ED 612
Recommended: AHE 562 and completion or concurrent enrollment in an introductory statistics course

AHE 613, RESEARCH ANALYSIS AND INTERPRETATION IN EDUCATION, 3 Credits
Critical analysis of scholarly studies in education from a variety of research perspectives.
Equivalent to: ED 613
Recommended: AHE 612 and completion or concurrent enrollment in an intermediate statistics course

AHE 614, ADVANCED RESEARCH METHODS IN EDUCATION, 1-3 Credits
Selected topics in research methods as appropriate for research perspectives in education. May be repeated.
Equivalent to: ED 614
This course is repeatable for 6 credits.
Recommended: AHE 613

AHE 615, RESEARCH ISSUES, 3 Credits
A core course in the College of Education’s doctoral program that focuses on research issues.
Prerequisite: (AHE 612 with C or better and AHE 613 [C] and AHE 614 [C])

AHE 616, QUANTITATIVE ANALYSIS IN EDUCATIONAL RESEARCH II, 3 Credits
Develop conceptual and practical understanding of research and evaluation in higher education. Course topics include basic statistics, survey design, data analysis, and assessment issues. As an advanced statistics course, students will have the opportunity to apply concepts and gain direct research experience by conducting an original research project.
Prerequisite: AHE 611 with C or better

AHE 618, QUALITATIVE ANALYSIS IN EDUCATIONAL RESEARCH, 3 Credits
Introduces learners to a variety of qualitative research perspectives and methodologies. Participants will examine these approaches by critiquing a scholarly article containing qualitative methods; formulating qualitative questions; writing a short proposal; collecting, coding, and analyzing data; and writing a final synthesis paper.
Available via Ecampus
AHE 621, LEADERSHIP IN STUDENT SERVICES, 3 Credits
Exploration of significant issues in design and delivery of student services in community college and higher education settings. Group discussion, model building, problem posing, issues analysis, and theory applications are employed. Students will reflect on current and future practices in student services, including emerging approaches to leadership.
Equivalent to: ED 621

AHE 638, HISTORY OF HIGHER EDUCATION, 3 Credits
Surveys American higher education across 200-plus years of American history, with a specific emphasis in this section on the American community college.

AHE 640, HIGHER EDUCATION ADMINISTRATION, 3 Credits
Current leadership and management theories and models, systems of organization, patterns of internal and external governance, and issues in institutional planning and advancement in higher education.
Equivalent to: ED 640

AHE 643, ORGANIZATION THEORY-HIGHER EDUCATION, 3 Credits
An introduction to organizational theory (OT). The texts allow us to explore how systems thinking is applied to our world, and how we can use it to better understand the nature of human social engagement. Both OT and living systems theories are deeply associated with improvement and change theories in higher education settings and business.

AHE 645, ETHICAL PRACTICE, 3 Credits
Reviews major ethical theories with an emphasis on practical applications related to community college professional practice. Available via Ecampus

AHE 653, INSTRUCTIONAL LEADER I, 3 Credits
A core course in the College of Education’s doctoral program. Introduces major theories, theorists, and theoretical principles that will assist the learner in the understanding and development of systemic frameworks for instructional leadership.

AHE 672, RESEARCH PERSPECTIVES IN FOUR-YEAR HIGHER EDUCATION, 3 Credits
An overview of the extensive research related to four-year colleges and universities, with an emphasis on the role of research in understanding and interpreting the nature of higher education. Explore research epistemologies, theories, and approaches related to social science and higher education, and how these ideas influence worldview and subsequent research. Identify a significant research topic/problem statement which will carry forward into the second year research courses in moving toward the dissertation topic for research related to four-year higher education.

AHE 673, RESEARCH INTERPRETATION IN FOUR-YEAR HIGHER EDUCATION, 3 Credits
Critical analysis and interpretation of journal articles and scholarly research related to a problem statement in four-year higher education organization, learning, and/or leadership. Refinement of Sections 1 (Research Focus and Problem Statement) and 2 (Manuscript and Literature Review) of a Dissertation Proposal in four-year higher education.
Prerequisite: AHE 672 with C or better

AHE 674, ADVANCED RESEARCH METHODS IN FOUR-YEAR HIGHER EDUCATION, 3 Credits
Identification and evaluation of an appropriate quantitative or qualitative study focused on four-year higher education. This includes a requirement that students demonstrate the ability to analyze and interpret data associated with their research question(s) as identified in their research proposal and that they outline the methodology that will be used to answer their research question(s)/proposal.
Prerequisite: AHE 673 with C or better

AHE 675, FOUR-YEAR HIGHER EDUCATION RESEARCH ISSUES, 3 Credits
Finalize a dissertation proposal related to a research question on four-year education institutions that reflects research epistomologies, theories and approaches. Develop a dissertation draft for review by the student’s dissertation committee outlining: (a) Purpose of the student’s study and its significance within the context of research on four-year colleges and universities, (b) Review of related literature on the specific topic of the dissertation, and (c) Design of the dissertation study.
Prerequisite: AHE 674 with C or better

AHE 699, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

AHE 805, READING AND CONFERENCE, 1-16 Credits
Equivalent to: ED 805
This course is repeatable for 16 credits.

AHE 808, WORKSHOP, 1-4 Credits
Equivalent to: ED 808
This course is repeatable for 16 credits.

Counseling (COUN)
COUN 421, PERSONAL GROWTH AND WELLNESS IN THE MODERN WORLD, 3 Credits
Explores social and emotional adjustment, growth, and wellness within current social contexts. Examines challenges to wellness and the role of normal development, self-help, and the helping professions in the growth process. Available via Ecampus
COUN 431, SOCIAL CHANGE: ADDICTIONS AND TREATMENT, 3 Credits
Explores the etiology of addictions in modern society including the history and development of addictions work. Studies many aspects of addiction including historical origins, risk factors, biological and psychological functioning, counseling issues, skills, theories, assessment, treatment, relapse prevention, research, cultural and social justice issues, co-occurring disorders and population-specific information.
Available via Ecampus

COUN 441, INTRODUCTION TO PROFESSIONAL COUNSELING, 3 Credits
Provides students with an overview of the counseling profession that includes the history and philosophical foundations of the profession and roles and functions of professional counselors. The course content will critically engage the privilege and responsibility of the counseling profession in a multicultural society.
Available via Ecampus

COUN 499, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 18 credits.
Available via Ecampus

COUN 501, RESEARCH, 1-16 Credits
Equivalent to: TCE 501
This course is repeatable for 16 credits.

COUN 502, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: TCE 502
This course is repeatable for 16 credits.

COUN 503, THESIS, 1-16 Credits
Equivalent to: TCE 503
This course is repeatable for 999 credits.

COUN 505, READING AND CONFERENCE, 1-3 Credits
Equivalent to: TCE 505
This course is repeatable for 16 credits.

COUN 506, PROJECTS, 1-3 Credits
Equivalent to: TCE 506
This course is repeatable for 16 credits.

COUN 507, SEMINAR, 1-3 Credits
Equivalent to: TCE 507
This course is repeatable for 16 credits.

COUN 508, WORKSHOP, 1-16 Credits
Equivalent to: TCE 508
This course is repeatable for 16 credits.

COUN 509, PRACTICUM, 1-16 Credits
Designed to develop competencies in basic skills, facilitative dimensions, and counseling process. Self-critique, peer-critique, and supervisor-critique of videotaped interview. Written self-critique, oral case presentation and charting skills are learned. Graded P/N.
Equivalent to: TCE 509
This course is repeatable for 16 credits.

COUN 510, INTERNSHIP, 1-18 Credits
The internship is the culminating field experience of the MS in Counseling program. It is designed to provide students with an on-site placement in a public or private mental health or school setting that will create the necessary bridge between training and professionalism. Students are expected to function per the expectations of other full-time employees and counseling staff at the internship site. Graded P/N.
Equivalent to: TCE 510
This course is repeatable for 16 credits.

COUN 513, COUNSELING PRE-PRACTICUM, 3 Credits
Designed to develop competencies in basic counseling skills and processes. Self-critique, peer-critique, and supervisor-critique of videotaped interviews with peer clients. A pass requires at least B level work. Graded P/N.
Equivalent to: TCE 513
This course is repeatable for 6 credits.

COUN 514, PRACTICUM IN COUNSELING, 1-3 Credits
Designed to develop competencies in basic skills, facilitative dimensions, and counseling process. Self-critique, peer-critique, and supervisor-critique of videotaped interview. Written self-critique, oral case presentation and charting skills are learned. A pass requires at least B level work. Graded P/N.
Equivalent to: TCE 514
This course is repeatable for 9 credits.

COUN 515, COUNSELING INTERNSHIP, 1-15 Credits
The internship is the culminating field experience of the MS in Counseling program. It is designed to provide the student with an on-site placement in a public or private mental health or school setting that will create the necessary bridge between training and professionalism. Graded P/N.
Equivalent to: TCE 515
This course is repeatable for 24 credits.
Available via Ecampus

COUN 530, FUNDAMENTALS OF COUNSELING, 3 Credits
Exploration of basic helping processes appropriate in a variety of settings. Designed for students planning on working in a human service profession, such as counseling, teaching, nursing, medicine, law. A variety of skills and techniques are demonstrated and practiced through videotape and role play, and review of ethical standards of conduct.
Equivalent to: CSSA 530, TCE 530
COUN 531, DEVELOPMENTAL PERSPECTIVES IN COUNSELING, 3 Credits
A study of affective, behavioral, cognitive, physical, and moral development for human growth and maturation. Theories of personality and learning that affect normal and non-normal development. Relationship of understanding human development to the counseling profession.
Equivalent to: TCE 531

COUN 532, SOCIAL AND CULTURAL PERSPECTIVES IN COUNSELING, 3 Credits
Social and cultural factors effecting counseling. Includes studies of change, ethnic groups, subcultures, changing roles of women, sexism, urban and rural societies, population patterns, cultural mores, use of leisure time, and differing life patterns.
Equivalent to: TCE 532

COUN 533, ADDICTIVE BEHAVIOR COUNSELING, 3 Credits
Techniques for addictive behavior assessment and counseling. Specific addictions covered include substance abuse, gambling, and eating disorders.
Equivalent to: TCE 533

COUN 536, APPLIED PSYCHOPHARMACOLOGY FOR COUNSELORS, 3 Credits
Acquaints counseling students with the fundamentals of psychotropic drugs. Basics of pharmacology, adverse effects, indications, and drug interactions will be discussed. Boundaries of practice and practical issues of assessment and referral will be covered. The overall aim of the course is to provide information about psychopharmacology to the non-medical mental health care provider so that she or he can be a more informed member of the mental health care team. This course does not purport to prepare the student to be any part of the pharmacological prescriptive process. That is the purview of the medically trained person.
Equivalent to: TCE 536 Available via Ecampus

COUN 540, NEW VISION SCHOOL COUNSELING: ACADEMIC ACHIEVEMENT, 3 Credits
Participants will be able to implement research-based educational practices in: 1. Individual and group academic achievement counseling. 2. Consulting with parents, teachers, and schools regarding academic achievement. 3. Utilizing culturally competent practices in addressing academic achievement issues. 4. Applying the appropriate legal and ethical guidelines to work in the academic domain.
Equivalent to: TCE 540

COUN 541, THE COUNSELING PROFESSION, 3 Credits
Provides the foundation for becoming a counselor and explores the psychological and philosophical ramifications of the counselor in a changing world. Topics will include values in counseling, ethical and legal issues in counseling, research in counseling, and maintaining a professional identity.
Equivalent to: TCE 541

COUN 546, LEADERSHIP OF SCHOOL COUNSELING PROGRAMS, 3 Credits
Designed to prepare school counselors to lead teams in the development and implementation of comprehensive school counseling programs. Principles of leadership, system change, and advocacy are introduced. State and National Comprehensive School Counseling models are examined.
Equivalent to: TCE 546

COUN 548, SPECIAL EDUCATION ISSUES IN COUNSELING, 3 Credits
Addresses various educational disability categories, the fundamentals of special education law, the special education assessment process, the special education definition of emotional/behavioral disorders, and the counselor’s role in supporting children with special emotional needs.
Equivalent to: TCE 548

COUN 550, FOUNDATIONS OF MENTAL HEALTH COUNSELING, 3 Credits
Addresses the foundations of mental health counseling: (1) historical, philosophical, societal, cultural, economic, and political dimensions of, and current trends in, the mental health movement; (2) roles, functions, preparation standards, credentialing, licensure and professional identity of mental health counselors, (3) policies, laws, legislation, recognition, reimbursement, right-to-practice, and other issues relevant to mental health counseling.
Equivalent to: TCE 550

COUN 551, THEORY AND TECHNIQUES OF COUNSELING I, 3 Credits
Basic concepts and facilitative skills of helping relationships. Introduction and overview of counseling theories and their related processes and techniques.
Equivalent to: TCE 551

COUN 552, THEORY AND TECHNIQUES OF COUNSELING II, 3 Credits
Continued development of the theories and techniques of counseling including identification of the counseling process. Emphasis on personality development and affective, behavioral and cognitive approaches.
Equivalent to: TCE 552
Recommended: COUN 551
COUN 562, INTRODUCTION TO RESEARCH METHODS IN COUNSELING, 3 Credits
An introductory course for master's level students. Explains basic evaluation, quantitative and qualitative research methods in the counseling profession; action research and the fundamental statistical procedures used in the interpretation and use of research studies.

COUN 567, APPRAISAL OF THE INDIVIDUAL, 3 Credits
Development of framework for understanding the individual; methods for data gathering and assessment; individual and group testing; case study approaches; observational, sociometric, and environmental procedures; study of individual differences. Ethnic, cultural, and sex factors are emphasized.
Equivalent to: TCE 567
Recommended: Basic statistics course.

COUN 568, LIFESTYLE AND CAREER DEVELOPMENT, 3 Credits
Major theoretical approaches to career development; available resources for educational and occupational assessment; procedures to enhance career exploration, planning and placement. Emphasis is on the decision-making process and issues of career counseling with special populations.
Equivalent to: TCE 568

COUN 571, GROUP COUNSELING PROCEDURES, 3 Credits
A conceptual and experiential introduction to group dynamics. Group counseling approaches and models; issues of group leadership; styles of leadership and group facilitation skills. Consideration is given to group counseling goals, composition, phases and research.
Equivalent to: TCE 571

COUN 575, FAMILY COUNSELING, 3 Credits
An overview of the major theoretical approaches to family counseling will be covered. Through the use of readings, demonstrations, and videos the student will become familiar with systems foundations, the history of family counseling, family roles, interaction patterns, and decision-making processes.
Equivalent to: TCE 575

COUN 577, APPLIED PSYCHOPATHOLOGY AND PSYCHODIAGNOSTICS, 3 Credits
Addresses the principles of diagnosis of psychopathology and the use of current diagnostic tools, including the current edition of the Diagnostic and Statistical Manual (DSM). Includes psychiatric terminology, treatment, current research, cross cultural impact, ethical implications, and goal planning related to mental health processes and case management.
Equivalent to: TCE 577
Recommended: COUN 541 and COUN 551 and COUN 552.

COUN 578, CRISIS, TRAUMA, AND GRIEF COUNSELING, 3 Credits
The theory and pragmatics of crisis, trauma and grief counseling are addressed.
Equivalent to: TCE 578

COUN 579, TRAUMA-INFORMED COUNSELING, 3 Credits
Trauma-informed counseling methods for promoting client wellness and resilience are addressed.
Prerequisite: COUN 578 with C or better
Recommended: COUN 509

COUN 581, CROSS-CULTURAL COUNSELING, 3 Credits
Cognitive and experimental study of social and psychological variables influencing the cross-cultural counseling relationship. Social and psychological experiences of selected subcultures. Relevant assessment instruments and current literature, methods and outcome studies.
Equivalent to: TCE 581

COUN 582, MULTICULTURAL COUNSELING II, 3 Credits
Further explores multicultural counseling by studying in-depth the experience of specific student populations and their unique strengths and needs. Students will gain understanding of the specialized school programs and state and national regulations that support a variety of learners as well as the theories and research related to language acquisition to support ELL and bilingual students in the PK-12 system. Students will engage in authentic experiences and assignments to enrich their understanding of sub-populations of students and their families to enhance their cultural responsiveness with those specific groups of learners.
Prerequisite: COUN 581 with C or better

COUN 591, INSTRUCTIONAL STRATEGIES FOR SCHOOL COUNSELORS, 3 Credits
Students will gain understanding in research-based classroom teaching practices including classroom planning and evaluation. Students will refine their educational beliefs of classroom practice and gain insight into the administrative structure of public schools as it relates to the teacher and school counselor.
Equivalent to: TCE 591
Available via Ecampus

COUN 592, CLASSROOM INSTRUCTION FOR COUNSELORS, 3 Credits
75 hours of supervised instruction in a public school setting.
Equivalent to: TCE 592
Recommended: COUN 591.

COUN 595, GROUP COUNSELING II, 3 Credits
Group counseling theories and pragmatics for clients with mental and emotional disorders.
Equivalent to: TCE 595
Available via Ecampus
COUN 597, INTRODUCTION TO COUNSELOR SUPERVISION, 3 Credits
Introduction to the theory and pragmatics of counselor supervision.
Equivalent to: TCE 597
Available via Ecampus

COUN 598, COUNSELOR CONSULTATION, 3 Credits
Development of consultation skills as a supervisor and counselor educator. Consultation theory and practice are studied. Students practice consultation skills and receive feedback.
Equivalent to: TCE 598
Available via Ecampus

COUN 599, SPECIAL TOPICS, 1-4 Credits
Equivalent to: TCE 599
This course is repeatable for 90 credits.

COUN 601, RESEARCH, 1-16 Credits
Equivalent to: TCE 601
This course is repeatable for 16 credits.
Available via Ecampus

COUN 602, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: TCE 602
This course is repeatable for 16 credits.

COUN 603, THESIS, 1-16 Credits
Equivalent to: TCE 603
This course is repeatable for 999 credits.
Available via Ecampus

COUN 605, READING AND CONFERENCE, 1-16 Credits
Equivalent to: TCE 605
This course is repeatable for 16 credits.

COUN 606, PROJECTS, 1-16 Credits
Equivalent to: TCE 606
This course is repeatable for 16 credits.

COUN 607, SEMINAR, 1-16 Credits
Equivalent to: TCE 607
This course is repeatable for 16 credits.
Available via Ecampus

COUN 608, WORKSHOP, 1-16 Credits
Equivalent to: TCE 608
This course is repeatable for 16 credits.

COUN 609, PRACTICUM IN COUNSELING, 1-12 Credits
Specialized counseling experiences supervised by a professional. Emphasis is on development of advanced skills in counseling specific to a population.
Equivalent to: TCE 609
This course is repeatable for 16 credits.

COUN 610, INTERNSHIP IN COUNSELING, 1-15 Credits
Designed to provide experiences in development of teaching and supervision skills in preparation as a counselor educator and supervisor.
Equivalent to: TCE 610
This course is repeatable for 15 credits.

COUN 612, RESEARCH PERSPECTIVES IN EDUCATION, 3 Credits
Research perspectives, how they are influenced by worldviews, and how these worldviews influence research.
Equivalent to: TCE 612
Recommended: COUN 562 and completion or concurrent enrollment in an introductory statistics course

COUN 613, RESEARCH ANALYSIS AND INTERPRETATION IN EDUCATION, 3 Credits
Critical analysis of scholarly studies in education from a variety of research perspectives.
Equivalent to: TCE 613
Recommended: (TCE 612 or COUN 612) and completion or concurrent enrollment in an intermediate statistics course

COUN 614, ADVANCED RESEARCH METHODS IN EDUCATION, 1-3 Credits
Selected topics in research methods as appropriate for research perspectives in education.
Equivalent to: TCE 614
This course is repeatable for 6 credits.
Recommended: COUN 613

COUN 616, UNIVERSITY LEVEL INSTRUCTIONAL THEORY AND METHODS, 3 Credits
Addresses general university level instructional theory and methods as well as pedagogy specific to counselor education.
Equivalent to: TCE 616

COUN 617, ADVANCED COUNSELOR SUPERVISION, 3 Credits
Advanced theory and techniques in counselor supervision. Pedagogical issues in training supervisors are addressed.
Equivalent to: TCE 617

COUN 618, PRACTICUM IN COUNSELING, 1-12 Credits
Specialized counseling experiences supervised by a professional. Emphasis is on development of advanced skills in counseling specific to a population.
Equivalent to: TCE 618
This course is repeatable for 16 credits.
COUN 619, INTERNSHIP IN COUNSELING, 1-12 Credits
Designed to provide experiences in development of teaching and supervision skills in preparation as a counselor educator and supervisor.
Equivalent to: TCE 619
This course is repeatable for 16 credits.
Available via Ecampus

COUN 621, ADVANCED TOPICS IN EDUCATION, 3 Credits
Advanced critical study of theory and research related to specific topics of counseling and counselor education.
Equivalent to: TCE 621
This course is repeatable for 18 credits.

COUN 634, ADVANCED COUNSELING PRACTITIONER II, 3 Credits
Addresses the theory, science, pragmatics and pedagogy of evidence-based practices in professional counseling.
Equivalent to: TCE 634

COUN 662, COUNSELOR EDUCATION QUANTITATIVE RESEARCH METHODS I, 3 Credits
Part I of a three-course sequence designed to prepare students to meet the CACREP doctoral standards for quantitative research methods in counselor education. Topics addressed in course I include application of the following in counselor education research: (1) data scales and scale transformation, (2) frequency distributions and histograms, (3) measures of central position, (4) variability, (5) characteristics of data curves, (6) normality, (7) measures of variability, (8) the statistical hypothesis, (9) statistical errors (Type I/Type II), (10) power analysis, and (11) statistical correlation.
Equivalent to: TCE 662
Recommended: COUN 562.

COUN 663, COUNSELOR EDUCATION QUANTITATIVE RESEARCH METHODS II, 3 Credits
Part II of a three-part course sequence designed to prepare students to meet the CACREP doctoral standards for quantitative research methods in counselor education. Topics addressed in course II include application of the following in counselor education research: (1) a review of the dependent variable, normal curve, Type I and Type II errors, power analysis, and criteria for selecting statistical tools, (2) significance tests, including Chi-square test, one-factor analysis of variance, multiple comparison tests (L.S.D. and Tukey’s HSD), two-factor analysis of variance, statistical interaction (ordinal and ordinal), linear regression, factor analysis, and analysis of covariance.
Equivalent to: TCE 663
Recommended: COUN 568 and COUN 598.
Available via Ecampus

COUN 664, COUNSELOR EDUCATION QUANTITATIVE RESEARCH METHODS III, 3 Credits
Part III of a three-course sequence designed to prepare students to meet the CACREP doctoral standards for quantitative research methods in counselor education. Topics addressed in course III include application of the following in counselor education research: (1) multiple regression, (2) path analysis, (3) confirmatory factor analysis, analysis, (4) logistic regression, (5) reliability and generalizability theory, (6) cluster analysis, (7) structural equation modeling, and (8) single subject designs.
Equivalent to: TCE 664

COUN 665, PUBLICATION METHODS IN COUNSELOR EDUCATION, 3 Credits
Teaches doctoral students how to write theses, grant reports, peer-reviewed journal articles, and textbook chapters.
Equivalent to: TCE 665

COUN 667, ADVANCED ASSESSMENT IN COUNSELING, 3 Credits
Explores current issues in the use of assessment in counseling, best practices in instrument development, and best practices in assessment pedagogy.
Equivalent to: TCE 667

COUN 668, ADVANCED CAREER DEVELOPMENT AND CONSULTATION IN COUNSELING, 3 Credits
An advanced course surveying past, current, and possible future technical and philosophical perspectives concerning career development and counseling. Issues in consultation, social change theory, and advocacy action planning are also reviewed in light of their impact on future counseling practitioners. Pedagogical methods for presenting current issues in career development, consultation, social change theory and advocacy action planning are a major focus of the class.
Equivalent to: TCE 668
Recommended: COUN 568 and COUN 598.
Available via Ecampus

COUN 671, ADVANCED GROUP COUNSELING, 3 Credits
Provides learning experiences beyond the entry level in group counseling. Theoretical and pedagogical innovations in this area are discussed.
Equivalent to: TCE 671

COUN 681, ADVANCED DIVERSITY AND SOCIAL JUSTICE IN COUNSELOR EDUCATION, 3 Credits
Addresses pedagogy relevant to multicultural, diversity, and social justice issues and the role of racial, ethnic, and cultural heritage, nationality, socioeconomic status, family structure, age, gender, sexual orientation, religious and spiritual beliefs, occupation, physical, and mental status, local, regional, national, international perspective, and issues of equity such as oppression, power and privilege in counselor education.
Equivalent to: TCE 681
Recommended: COUN 581
COUN 696, COUNSELOR EDUCATION, 3 Credits
Orientation to the profession of counselor education. Specific topics include: (1) history and organization of the profession, (2) program accreditation standards and practices, (3) instructional theory and methods relevant to counselor education, and (4) ethical and legal considerations in counselor education.
Equivalent to: TCE 696

COUN 697, COUNSELOR SUPERVISION, 3 Credits
Practical experience for counseling professionals who have responsibility directing personal and professional development of counselors, promoting counselor competency, and developing and implementing counseling services and programs. Theoretical models of supervision are utilized to develop supervisor roles.
Equivalent to: TCE 697

Education (ED)
ED 199, SPECIAL TOPICS, 1-16 Credits
Students in this course receive training and experience in one-on-one and group tutoring in varied courses. They are then assigned tutees.
Equivalent to: TCE 199
This course is repeatable for 16 credits.

ED 216, *PURPOSE, STRUCTURE, AND FUNCTION OF EDUCATION IN A DEMOCRACY, 3 Credits
Introduction to the historical, social, philosophical, political, legal and economic foundations of education in Oregon, the United States, and other countries in order to provide a framework from which to analyze contemporary educational and environmental issues in various schools, communities, and workplaces. (Bacc Core Course)
Attributes: CPDP – Core, Perspective, Difference/Power/Discrimination
Equivalent to: ED 216H, TCE 216
Available via Ecampus

ED 216H, *PURPOSE, STRUCTURE, AND FUNCTION OF EDUCATION IN A DEMOCRACY, 3 Credits
Introduction to the historical, social, philosophical, political, legal and economic foundations of education in Oregon, the United States, and other countries in order to provide a framework from which to analyze contemporary educational and environmental issues in various schools, communities, and workplaces. (Bacc Core Course)
Attributes: CPDP – Core, Perspective, Difference/Power/Discrimination; HNRS – Honors Course Designator
Equivalent to: ED 216

ED 219, *SOCIAL JUSTICE, CIVIL RIGHTS & MULTICULTURALISM IN EDUCATION, 3 Credits
Covers examination of equity and injustice based on social groupings such as race, gender, language, and ability. Discusses equitable approaches and power in systems and institutions of society (e.g., schooling, curriculum, educational policy) and how to actively make change. Reviews contemplation of multiculturalism and personal experiences through a wholeness approach. (Bacc Core Course)
Attributes: CPDP – Core, Perspective, Difference/Power/Discrimination
Equivalent to: TCE 219
Available via Ecampus

ED 253, LEARNING ACROSS THE LIFESPAN, 3 Credits
An exploration of how learning occurs at all ages from early childhood through adulthood. Covers major and emerging theories and styles, self-reflection on implications of how learning occurs for self and others, and the impact of these issues on the development and delivery of instruction.
Equivalent to: TCE 253
Available via Ecampus

ED 299, SPECIAL TOPICS, 1-16 Credits
Equivalent to: TCE 299
This course is repeatable for 16 credits.

ED 309, FIELD PRACTICUM, 3-6 Credits
Placement in either an elementary, middle or secondary school. To assist students to develop competencies in dealing with children or adolescents according to the individual major of the university student.
Equivalent to: TCE 309
This course is repeatable for 18 credits.
Available via Ecampus

ED 310, INTERNSHIP/WORK EXPERIENCE, 1-18 Credits
This course is repeatable for 18 credits.

ED 340, *SUPPORTIVE DIFFERENTIATED ENVIRONMENTS, 3 Credits
Addresses special abilities and needs of learners and helps prepare teachers to develop strategies and instructional practices for diverse learners and students with exceptionalities in a supportive and inclusive classroom. (Writing Intensive Course)
Attributes: CWIC – Core, Skills, WIC
Equivalent to: TCE 340

ED 394, DIFFERENTIATION IN THE ELEMENTARY CLASSROOM, 2 Credits
The role of culture, language, and group identification in learning will be examined and applied to the consideration of differentiated instructional strategies in grades K-5. Students will learn strategies teachers use to help differentiate instruction to meet the diverse needs of students in the elementary classroom.
ED 399, SPECIAL TOPICS, 1-16 Credits
Equivalent to: TCE 399
This course is repeatable for 16 credits.

ED 401, RESEARCH, 1-16 Credits
Equivalent to: TCE 401
This course is repeatable for 16 credits.

ED 402, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: TCE 402
This course is repeatable for 16 credits.

ED 403, THESIS, 1-16 Credits
This course is repeatable for 16 credits.

ED 405, READING AND CONFERENCE, 1-16 Credits
Equivalent to: TCE 405
This course is repeatable for 16 credits.

ED 406, PROJECTS, 1-3 Credits
Equivalent to: TCE 406
This course is repeatable for 16 credits.

ED 407, SEMINAR, 1-16 Credits
Equivalent to: ED 407H, TCE 407
This course is repeatable for 16 credits.
Available via Ecampus

ED 407H, SEMINAR, 1-16 Credits
Attributes: HNRS – Honors Course Designator
Equivalent to: ED 407, TCE 407
This course is repeatable for 16 credits.

ED 408, WORKSHOP, 1-3 Credits
Equivalent to: ED 408H, TCE 408
This course is repeatable for 16 credits.

ED 408H, WORKSHOP, 1-3 Credits
Attributes: HNRS – Honors Course Designator
Equivalent to: ED 408, TCE 408H
This course is repeatable for 16 credits.

ED 409, PRACTICUM/CLINICAL EXPERIENCE, 1-16 Credits
Equivalent to: TCE 409
This course is repeatable for 16 credits.

ED 410, INTERNSHIP/WORK EXPERIENCE, 1-18 Credits
Equivalent to: TCE 410
This course is repeatable for 18 credits.
Available via Ecampus

ED 411, EDUCATIONAL PSYCHOLOGY, LEARNING AND DEVELOPMENT, 3 Credits
An opportunity to begin the transition from student to teacher. Explores the relationship between human development and learning through the life cycle.
Equivalent to: TCE 411
Available via Ecampus

ED 412, LEARNING STYLES AND NEEDS IN ADOLESCENCE, 2 Credits
Exploration of the particular learning styles and needs of the adolescent, major and emerging learning theories, individual learning styles including one’s own learning styles, self-reflection on implications of how learning occurs, and the impact of these issues on the development and delivery of instruction.
Equivalent to: TCE 412

ED 413, LEARNING ENVIRONMENTS I: FOSTERING CLASS ENGAGEMENT, 3 Credits
Creating a positive culture in the classroom, managing student behavior, and engaging students in critical learning discourse are challenges faced by all educators. Students will learn to develop the components of a productive and safe learning environment.

ED 414, LEARNING ENVIRONMENTS II: ADVANCING EVERY STUDENT, 2 Credits
Students will expand their knowledge about constructing a positive K-12 classroom environment to a productive learning environment accommodated to fit the needs of a diversified student population.
Prerequisite: ED 413 with D- or better

ED 420, CLASSROOM MANAGEMENT, 3 Credits
Build knowledge and learn techniques for cultivating a positive learning environment and for managing classrooms. Learn through examining the literature and observing relevant learning environments and classrooms. Explore factors that influence student behavior, including those associated with social and/or multicultural student populations.
Available via Ecampus

ED 424, TEACHER AS REFLECTIVE PRACTITIONER, 2 Credits
Designed to help teachers make complex judgments based upon their knowledge and understanding of their students, the curriculum, and larger social and cultural issues through reflective practice. Problem solving related to teaching with strong focus on generating new knowledge about teaching, learning, and assessment.
Prerequisite: ED 407 with C- or better and ED 410 [C-]
ED 425, CURRICULUM IMPLEMENTATION AND INSTRUCTIONAL STRATEGIES 7-12, 4 Credits
The relationship of theory to practice in teaching the content areas in grades 7-12 is examined. General curriculum trends as well as content selection in specific endorsement/subject areas are explored. This course is preparation for and is coordinated with part-time student teaching.
Equivalent to: TCE 425

ED 427, ASSESSMENT FOR K-12 INSTRUCTION, 2 Credits
Students study and practice the administration, interpretation, and design of assessments for groups and individuals within the content area. Students will develop an understanding of a variety of assessment strategies for K-12 education that will enhance their understandings of the role of assessment in learning and curriculum design.
Equivalent to: TCE 427

ED 429, CURRICULUM, INSTRUCTION, AND ASSESSMENT FOR CTE, 3 Credits
Build knowledge and skills in curriculum design, instructional strategies, and assessment for successful teaching in a Career and Technical Education and other specialty areas: (a) Agriculture Food and Natural Resource Systems, (b) Arts, Information and Communications, (c) Business Management, (d) Health Sciences (e) Human Resources, (f) Industrial and Engineering Systems, (g) Family and Consumer Sciences, (h) Career Trades.
Available via Ecampus

ED 440, HUMAN DEVELOPMENT AND PSYCHOLOGY OF THE ADOLESCENT, 3 Credits
Examines research from psychology, human development, and neuroscience to provide a holistic understanding of adolescents and learning with a focus on the middle/secondary student. Investigates the influence of family, neighborhood, peer, and school contexts on brain development; identity formation; and the challenges and opportunities of adolescence.
Available via Ecampus

ED 448, STUDENTS WITH SPECIAL NEEDS, 2 Credits
Explores the broad range of special needs represented in today’s classrooms. Addresses various types and characteristics of disabilities as well as collaborating with specialists and families with children with special needs. Discusses strategies and instructional practices to enhance the learning of diverse students in the inclusive classroom.

ED 450, FOUNDATIONS OF EDUCATION AND PLANNING, 4 Credits
The first of three courses examining the iterative cycle of curriculum planning, instruction and assessment. An introduction to learning theory and the relationship between teaching and learning provide the foundation. An overview of the complete teaching cycle leads to a focus on curriculum planning based on state standards.

ED 451, ASSESSMENT, 4 Credits
Assessment for and of learning and its importance to student engagement and advancement. Formal and informal writing derived from multiple revisions will result in documents intended for different audiences including parents, school administrators, and national assessment prompts citing research-based practices.
Attributes: CWIC – Core, Skills, WIC
Prerequisite: ED 450 with C or better

ED 452, USING DATA TO SUPPORT ALL STUDENTS, 3 Credits
Teacher candidates will gather and analyze student data to inform instructional practice devoted to enhancing student learning; develop data literacy skills; differentiate instruction for targeted groups and individualized student learners while continuing to foster higher-order thinking and communication skills in the whole class; analyze patterns and gaps in individualized student learning; apply differentiated instruction and assessment strategies to support student growth; engage learners in goal setting; and identify teaching and assessment strategies to work with students with exceptional needs.
Prerequisite: ED 451 with C or better

ED 456, STRATEGIES FOR TEACHING LANGUAGE ARTS AND SOCIAL STUDIES, 3 Credits
Exploration of language arts and social studies programs (e.g., children’s literature, writing, special needs, spelling, and cultural factors). Development of research-based teaching strategies and assessment. Focuses on the development of inquiry approaches that reflect interdisciplinary curriculum as well as subject-specific pedagogy in the teaching of both social studies and language arts.
Equivalent to: TCE 456
Recommended: ED 216 and ED 219 and ED 253

ED 457, TEACHING ELEMENTARY MATHEMATICS FOR UNDERSTANDING, 3 Credits
Part of the Education Double Degree. Explores the teaching of mathematics in K-8 classrooms in a manner consistent with state and national standards. Students learn teaching strategies that incorporate the development of mathematical models and mental constructs.
Equivalent to: TCE 457
Recommended: MTH 211 and MTH 212 and MTH 390

ED 458, STRATEGIES FOR TEACHING WELLNESS AND FINE ARTS, 2 Credits
Exploration of recent trends and research-based practices in the teaching of wellness, physical education, and fine arts. Includes strategies, assessments, special needs, integrating curriculum through developmentally appropriate practices, content standards, and the value of developing holistic learners through an effective wellness and fine arts program.
Equivalent to: TCE 458
Recommended: ED 216 and ED 219 and ED 253
ED 463, STRATEGIES FOR TEACHING PHYSICAL EDUCATION HEALTH & WELLNESS, 1 Credit
Exploration of recent trends and research-based practices in the teaching of physical education, health, and wellness in elementary school. Includes instructional strategies for developing holistic learners though an effective wellness program.

ED 465, ELEMENTARY METHODS: LITERACY, 2-4 Credits
Understanding the theoretical and developmental foundations for literacy programs K-5; targeted reading, writing, listening, vocabulary, and speaking skill needs assessments; organizational strategies for teaching literacy; understanding dyslexia and how to differentiate instruction for students with dyslexia; and the integration of cultural diversity and social justice into literacy learning. This course is repeatable for 4 credits.

ED 466, ELEMENTARY METHODS II: MATHEMATICS, 4 Credits
Exploration of the teaching of early childhood/elementary school mathematics with emphases on problem solving, connections, representation, communication, reasoning and proof. Course will incorporate the development of mathematical models and mental constructs. Research-based, developmentally appropriate and culturally relevant practices will be incorporated into lessons.

ED 467, ELEMENTARY METHODS III: NATURAL AND SOCIAL SCIENCE, 4 Credits
Inquiry approaches to the teaching and learning of the natural and social sciences are used to explore the structure of the disciplines and support the creation of instructional units that develop disciplinary knowledge and practices/skills while highlighting cross-cutting themes. Scientific literacy and civic competence are emphasized.

ED 468, ELEMENTARY METHODS IV: LANGUAGE ARTS, 4 Credits
This course will build on ED 465: Elementary Methods I: Literacy. Development of pedagogy in teaching of reading to elementary-aged students, including the teaching of vocabulary, comprehension, phonics, fluency and motivation to read. Use of children's literature, assessment approaches, and special needs students are also addressed. Students will gain a deeper level of understanding in how to differentiate the teaching of reading at grades K-5, how to run a Writers' Workshop, and how to integrate literacy into other content areas.
Prerequisite: ED 465 with C or better

ED 469, STRATEGIES FOR TEACHING THE FINE ARTS, 1 Credit
Exploration of recent trends and research-based practices in the teaching of performing arts (dance, music, theater) and the visual arts in elementary school. Includes instructional strategies for developing holistic learners though an effective fine arts program.

ED 470, BILITERACY INSTRUCTION, 3 Credits
Explores literacy development in Spanish and English. Examines differences in literacy development across the two languages, as well as pedagogical approaches that leverage students’ home language and literacy practices. Explores equity and bias in classroom language practices. Taught bilingually in Spanish and English.
Prerequisite: ED 472 (may be taken concurrently) with C or better
Available via Ecampus

ED 471, MULTILINGUAL LINGUISTICS, 3 Credits
Explores linguistic categories: phonology, morphology, syntax, semantics, pragmatics, and discourse. Focuses on academic language development and teaching implications for emergent bilingual students in Spanish-English K-12 dual language programs. Taught bilingually in Spanish and English.
Prerequisite: ED 472 (may be taken concurrently) with C or better
Available via Ecampus

ED 472, FOUNDATIONS OF ESOL EDUCATION, 3 Credits
Examines characteristics of English language learners (ELLs), key theories in language acquisition, the role of culture in language development, and instructional program models for ELLs, while considering implications for classroom instruction.
Equivalent to: TCE 472
Available via Ecampus

ED 473, INSTRUCTIONAL APPROACHES FOR ESOL EDUCATION, 3 Credits
Examines characteristics of standards-based content-area instruction for emergent bilinguals. Includes integration of content and language development, classroom-based assessment, and use of technology to support student learning.
Prerequisite: ED 472 with C or better
Equivalent to: TCE 473

ED 474, PROJECT-BASED MATHEMATICS, 3 Credits
Building on the foundational concepts covered in ED 457 and ED 466/ED 566, students will plan and apply project-based lessons. Students will transfer knowledge and skills of mathematics to real world problems and will learn to teach with a project-based approach.

ED 475, INTEGRATED STEM, 3 Credits
Students will continue to develop their pedagogical content knowledge in science, technology, engineering, mathematics, and integrated STEM. Students will develop a deeper understanding of the crosscutting concepts common to all science endeavors and will learn how to use these concepts to bridge across science or STEM curriculum units. Students will also examine and develop expertise in using science and engineering practices to lead students in authentic inquiry. Integrating crosscutting concepts, science and engineering practices, and disciplinary core ideas, students will learn and practice the development of curriculum and instruction utilizing the engineering design process.
ED 476, PARTNERSHIPS AND IDEOLOGIES IN ESOL EDUCATION, 3 Credits
Considers social and political issues pertaining to educating English language learners. Focuses on exploring multiple ideologies in ESOL and building partnerships across schools, families, and communities.
**Prerequisite:** ED 472 with C or better
**Equivalent to:** TCE 476

ED 477, DIFFERENTIATION FOR STUDENTS WITH SPECIAL NEEDS, 3 Credits
Building on the foundational concepts covered in HDFS 431, this course goes into greater depth on how to provide students with a range of exceptionalities with education in the least restrictive environment. Teacher candidates will explore differentiated instruction techniques for students with special needs that can be used in both the regular education and pull out Special Education resource classrooms.

ED 478, SPECIAL EDUCATION LAW RIGHTS AND REGULATIONS, 3 Credits
In-depth review of special education law and regulations that protect and provide educational rights for students with disabilities. Teacher candidates will leave the class understanding both the historical and current legal rights of students receiving special education and how to best meet those rights in both the regular and special education resource classrooms.
**Available via Ecampus**

ED 479, LINGUISTICS FOR TEACHERS, 3 Credits
Explores linguistic categories: phonology, morphology, syntax, semantics, pragmatics, and discourse. Focuses on teaching implications—from psycholinguistic, sociolinguistic, and critical perspectives—for emergent bilingual students in P-12 contexts.
**Prerequisite:** ED 472 with C or better
**Equivalent to:** TCE 479

ED 480, TEACHING MATH TO SECONDARY LEARNERS IN CONTEXT, 3 Credits
Enhance and reinforce mathematics embedded within occupational-specific curricula taught at the secondary level to prepare Career and Technical Education teachers for licensure.

ED 481, READING AND WRITING FOR SECONDARY LEARNERS IN CONTEXT, 3 Credits
Enhance and reinforce the authentic reading and writing embedded within occupationally relevant materials to prepare Career and Technical Education teachers for licensure.
**Available via Ecampus**

ED 483, DEVELOPMENTAL READING, 3 Credits
Development of pedagogy in teaching of reading to elementary-aged students, including teaching of vocabulary, comprehension, fluency and motivation to read. Use of children’s literature, assessment approaches, and special needs students are also addressed. This is a PTCE course in the elementary Double Degree Program.
**Equivalent to:** TCE 483

ED 484, INTRODUCTION TO CAREER AND TECHNICAL EDUCATION, 3 Credits
A study of the history of Career and Technical Education, the impact of the educational reform on Career and Technical Education and workforce development. Topics include leaders in vocational education; legislative initiatives, social issues, and organizations involved in and impacting Career and Technical Education.
**Available via Ecampus**

ED 492, TECHNOLOGY TOOLS FOR TEACHING, 1 Credit
Develops technology skills needed to be successful as a classroom teacher. Explores how digital tools can be used in instruction, assessment, communication, and collaboration in educational settings to bring vibrant energy into student learning and engagement. Covers responsible digital citizenship, responsible use and ethics of technology in the classroom.

ED 493, READING, LITERATURE, AND LANGUAGE DEVELOPMENT IN THE CONTENT, 2 Credits
Examination of reading, literature, and language development methods that can be used by middle school and high school teachers to support students’ learning of content area information. Development of specific reading strategies in content areas.
**Equivalent to:** TCE 493

ED 494, CONTENT STANDARDS AND CURRICULUM DEVELOPMENT FOR HIGH SCHOOL, 3 Credits
Exploration of content standards, materials and methods appropriate for high school students. Develops skills in work sample methodology through the design of effective instruction, integrating a variety of methods with existing understandings of content area, how people learn, and the diverse communities in which they work.
**Equivalent to:** TCE 494

ED 496, TECHNOLOGY FOR EDUCATORS, 3 Credits
Explore the integration of current and emerging technologies into K-12 content areas by engaging learners in real world issues and learning in a social context. Integrate technologies that promote critical thinking, communication, collaboration, and creativity. Discuss technologies in terms of cultural linguistic diversity. Gain transferable skills. Taught via Ecampus only.
**Recommended:** Basic computer literacy.
**Available via Ecampus**
ED 499, SPECIAL TOPICS, 1-16 Credits
Equivalent to: TCE 499
This course is repeatable for 16 credits.

ED 501, RESEARCH, 1-16 Credits
Equivalent to: TCE 501
This course is repeatable for 16 credits.

ED 502, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: TCE 502
This course is repeatable for 16 credits.
Available via Ecampus

ED 503, THESIS, 1-16 Credits
Equivalent to: TCE 503
This course is repeatable for 999 credits.

ED 505, READING & CONFERENCE, 1-16 Credits
Equivalent to: TCE 505
This course is repeatable for 16 credits.

ED 506, PROJECTS, 1-3 Credits
Equivalent to: TCE 506
This course is repeatable for 16 credits.

ED 507, SEMINAR, 1-16 Credits
Equivalent to: TCE 507
This course is repeatable for 16 credits.
Available via Ecampus

ED 508, WORKSHOP, 1-16 Credits
Equivalent to: TCE 508
This course is repeatable for 16 credits.

ED 509, PRACTICUM, 1-16 Credits
Equivalent to: TCE 509
This course is repeatable for 16 credits.
Available via Ecampus

ED 510, INTERNSHIP, 1-18 Credits
By special permission and arrangement.
Equivalent to: TCE 510
This course is repeatable for 40 credits.
Available via Ecampus

ED 513, LEARNING ENVIRONMENTS I: FOSTERING CLASS ENGAGEMENT, 3 Credits
Creating a positive culture in the classroom, managing student behavior, and engaging students in critical learning discourse are challenges faced by all educators. Students will learn to develop the components of a productive and safe learning environment.

ED 514, LEARNING ENVIRONMENTS II: ADVANCING EVERY STUDENT, 2 Credits
Students will expand their knowledge about constructing a positive K-12 classroom environment to a productive learning environment accommodated to fit the needs of a diversified student population.
Prerequisite: ED 513 with B or better

ED 515, LEARNING ENVIRONMENTS III: CULTURES AND COMMUNITIES, 2 Credits
The third in a series of courses to assist the Teacher candidate in developing a classroom culture of learning that challenges every student to succeed and thrive. Teacher candidates will understand the important role that culture and community play in the teaching and learning process, and develop culturally responsive teaching practices.
Prerequisite: ED 513 with B or better and ED 514 [B]

ED 518, PROFESSIONAL PRACTICE IN THE TEACHING COMMUNITY, 2 Credits
The professional themes of communication, collaboration, reflection, knowledge of learners, professional ethics, social justice and cultural understanding will be explored and applied to teaching contexts, behaviors, dispositions, and actions.

ED 519, CAPSTONE: TEACHING AS A PROFESSION, 3 Credits
Capstone course for the MAT in which teacher candidates further develop their educational philosophy and analyze their professional growth in alignment with national standards.

ED 520, CLASSROOM MANAGEMENT, 3 Credits
Build knowledge and learn techniques for cultivating a positive learning environment and for managing classrooms. Learn through examining the literature and observing relevant learning environments and classrooms. Explore factors that influence student behavior, including those associated with social and/or multicultural student populations.
Equivalent to: TCE 520
Available via Ecampus

ED 521, FUNDS OF KNOWLEDGE IN EDUCATION, 3 Credits
An introduction to multicultural education and developing cultural competence by using a funds of knowledge approach. This approach helps educators combine fieldwork and ethnographic research methods to gain cultural competence about the students they serve. Educators explore their own funds of knowledge as well as the children's through exploring their community and developing activities centered on children's own connections and resources.
ED 522, RACIAL AND CULTURAL HARMONY IN THE K-12 CLASSROOM, 3 Credits
An overview of many issues relevant to the increasingly diverse student population in public schools today. It explores how a culturally competent perspective can be incorporated into curriculum design, teaching strategies, and interactions with students and parents. The course is both self-directed and communal, requiring students to respond to the materials and each other, yet at their own pace.
Equivalent to: TCE 522
Available via Ecampus

ED 524, TEACHER AS REFLECTIVE PRACTITIONER, 2-3 Credits
Designed to help teachers make complex judgements based upon their knowledge and understanding of their students, the curriculum, and larger social and cultural issues through reflective practice. Problem solving related to teaching with strong focus on generating new knowledge about teaching, learning, and assessment.
Equivalent to: TCE 524
Available via Ecampus

ED 528, ASSESSMENT FOR LEARNING, 3 Credits
Applies the formative learning cycle to through development of an assessment plan. Examines various formative assessment practices that promote higher order thinking and empower students to show evidence of their learning through self-assessment and feedback.
Equivalent to: TCE 528
Available via Ecampus

ED 531, SCIENCE METHODS I: INQUIRY AND THE NATURE OF SCIENCE, 4 Credits
Introduction to (1) fundamentals of science teaching including the nature of science and inquiry, (2) designing instructional sequences and selecting curriculum resources aligned to state science standards and research-based learning progressions, (3) effective teaching moves, (4) supporting acquisition of academic language, and (5) productive and safe science learning environments.
Equivalent to: SED 513

ED 532, SCIENCE METHODS II: SUPPORTING STUDENTS' CONCEPTUAL CHANGE, 4 Credits
Development of skill in identifying and addressing misconceptions or naive conceptions as part of the individualized conceptual change process. Integration of technology tools for instruction and assessment. Development of high-leverage science teaching practices with a focus on enhancing classroom discourse and evidence-based argumentation with a survey of science curriculum models.
Prerequisite: ED 531 with B or better

ED 533, SCIENCE METHODS III: SCIENCE FOR ALL LEARNERS, 4 Credits
Teaching science as a community of practice means addressing the needs of all learners, particularly those underrepresented in science. Uses technology to enhance high-leverage teaching practices and practices safe and effective laboratory teaching methods. Explores contextualized and interdisciplinary approaches to science education.
Prerequisite: ED 531 with B or better and ED 532 [B]

ED 537, MATHEMATICAL METHODS I: FOUNDATIONS OF NUMERICAL THOUGHT, 4 Credits
Introduction to the fundamentals of mathematics teaching including the nature and goals of mathematical thinking, numeracy, inquiry, and related academic language of mathematics. Students are introduced to the high high-leverage practices of ambitious mathematics teaching, designing instructional sequences and selecting curriculum resources aligned to state science standards and research-based learning progressions.
Equivalent to: SED 514

ED 538, MATHEMATICS METHODS II: CYCLES OF ENACTMENT, 4 Credits
Teacher candidates create instructional units based on student knowledge and skill while attending to needed accommodations. Designed to help the teacher candidate select or modify instructional materials based on student prior knowledge, experience, and interests; make accommodations for students; and provide for multiple representations across a unit of instruction.
Prerequisite: ED 537 with B or better

ED 539, MATHEMATICAL METHODS III: MATHEMATICS FOR EVERY LEARNER, 4 Credits
Teacher candidates will develop practices that support all students, regardless of background or ability. The teacher candidate will design a unit of instruction with complex learning goals that are cross- and multi-disciplinary, draw on multiple perspectives, and invoke higher order thinking and communication skills.
Prerequisite: ED 537 with B or better and ED 538 [B]

ED 540, HUMAN DEVELOPMENT AND PSYCHOLOGY OF THE ADOLESCENT, 3 Credits
Examines research from psychology, human development, and neuroscience to provide a holistic understanding of adolescents and learning with a focus on the middle/secondary student. Investigates the influence of family, neighborhood, peer, and school contexts on brain development; identity formation; and the challenges and opportunities of adolescence.
Available via Ecampus

ED 542, TEACHER LEADERSHIP, 3 Credits
Examines current conceptions, research, and philosophies of educational leadership. The goal is to promote teacher-leadership in effective teaching and learning and influence in local educational policies and programs.
Equivalent to: TCE 542
ED 544, TEACHING CRITICAL LITERACY, 3 Credits
Examines literacy curriculum and teaching practices in various real world contexts, such as critical literacy, supporting second language learners, argumentation, reading engagement and social justice. While still addressing technical dimensions of literacy education, students write critical literacy curricula, take turns leading critical book discussions, and learn to critique text bias. Course challenges students to develop critical consciousness as teachers of literacy in a democracy.

ED 548, STUDENTS WITH SPECIAL NEEDS, 2 Credits
Explores the broad range of special needs represented in today’s classrooms. Addresses various types and characteristics of disabilities as well as collaborating with specialists and families with children with special needs. Discusses strategies and instructional practices to enhance the learning of diverse students in the inclusive classroom. Available via Ecampus

ED 549, TEACHING IN A DIFFERENTIATED AND DIVERSE CLASSROOM, 3 Credits
Addresses the philosophical framework, strategies, and assessment of differentiation to meet the needs of all students in the classroom. Equivalent to: TCE 549

ED 550, THE EFFECTIVE TEACHING CYCLE I: FOUNDATIONS AND PLANNING, 4 Credits
The first of three courses examining the iterative cycle of curriculum planning, instruction, and assessment. An introduction to learning theory and the relationship between teaching and learning provides the foundation. An overview of the complete teaching cycle leads to a focus on curriculum planning based on state standards.

ED 551, THE EFFECTIVE TEACHING CYCLE II: ASSESSMENT, 4 Credits
The second of three courses examining the iterative cycle of curriculum planning, instruction, and assessment. Learning in this class will concentrate on assessment for and of learning and its importance to student engagement and advancement. Prerequisite: ED 550 with B or better

ED 558, STRATEGIES FOR TEACHING WELLNESS AND FINE ARTS, 2 Credits
Exploration of recent trends and research-based practices in the teaching of wellness, physical education, and fine arts. Includes strategies, assessments, special needs, integrating curriculum through developmentally appropriate practices, content standards, and the value of developing holistic learners though an effective wellness and fine arts program.

ED 559, STRATEGIES FOR TEACHING HUMANITIES, 3 Credits
Pedagogical approaches to teaching language arts and social studies in K-5, multiple subject classrooms. Focus on developing research-based daily lessons and unit plans that integrate curriculum, support national standards, and use an inquiry approach for student learning.

ED 560, CHANGES IN ESOL EDUCATION, 3 Credits
Explores recent developments in education for K-12 emergent bilingual students, examining changes in theory, policy, and instruction. Practice-based projects draw on new language acquisition theories to address both language and content-knowledge development. Course work intended for K-12 teachers who earned an ESOL endorsement more than five years ago, as well as those with equivalent background knowledge. Recommended: K-12 teaching license with ESOL endorsement Available via Ecampus

ED 561, ACTION RESEARCH, 1-3 Credits
Examines action research as a vehicle for teacher and administrator professional development. Specific topics of study include problem posing, data collection and analysis, theory building, and writing the report. Equivalent to: TCE 561 This course is repeatable for 3 credits.

ED 562, INTRODUCTION TO EDUCATIONAL RESEARCH, 3 Credits
Explores the purpose and use of social science research in education with emphasis on action and applied research. Designed to help teachers and informal educators to critically read, interpret, and apply research findings to the diverse contexts in which they work, and to become informed consumers of educational research. Equivalent to: TCE 562

ED 563, STRATEGIES FOR TEACHING PHYSICAL EDUCATION HEALTH & WELLNESS, 1 Credit
Exploration of recent trends and research-based practices in the teaching of physical education, health, and wellness in elementary school. Includes instructional strategies for developing holistic learners though an effective wellness program.

ED 565, ELEMENTARY METHODS: LITERACY, 2-4 Credits
Understanding the theoretical and developmental foundations for literacy programs K-5; targeted reading, writing, listening, vocabulary, and speaking skill needs assessments; organizational strategies for teaching literacy; understanding dyslexia and how to differentiate instruction for students with dyslexia; and the integration of cultural diversity and social justice into literacy learning. This course is repeatable for 4 credits.

ED 566, ELEMENTARY METHODS: MATHEMATICS, 4 Credits
Exploration of the teaching of early childhood/elementary school mathematics with emphases on problem solving, connections, representation, communication, reasoning and proof. Course will incorporate the development of mathematical models and mental constructs. Research-based, developmentally appropriate and culturally relevant practices will be incorporated into lessons.
ED 567, ELEMENTARY METHODS: NATURAL AND SOCIAL SCIENCE, 4 Credits
Inquiry approaches to the teaching and learning of the natural and social sciences are used to explore the structure of the disciplines and support the creation of instructional units that develop disciplinary knowledge and practices/skills while highlighting cross-cutting themes. Scientific literacy and civic competence are emphasized.

ED 569, STRATEGIES FOR TEACHING THE FINE ARTS, 1 Credit
Exploration of recent trends and research-based practices in the teaching of performing arts (dance, music, theater) and the visual arts in elementary school. Includes instructional strategies for developing holistic learners though an effective fine arts program.

ED 570, BILITERACY INSTRUCTION, 3 Credits
Explores literacy development in Spanish and English. Examines differences in literacy development across the two languages, as well as pedagogical approaches that leverage students’ home language and literacy practices. Explores equity and bias in classroom language practices. Taught bilingually in Spanish and English.
Prerequisite: ED 572 (may be taken concurrently) with C or better
Available via Ecampus

ED 571, MULTILINGUAL LINGUISTICS, 3 Credits
Explores linguistic categories: phonology, morphology, syntax, semantics, pragmatics, and discourse. Focuses on academic language development and teaching implications for emergent bilingual students in Spanish-English K-12 dual language programs. Taught bilingually in Spanish and English.
Prerequisite: ED 572 (may be taken concurrently) with C or better
Available via Ecampus

ED 572, FOUNDATIONS OF ESOL EDUCATION, 3 Credits
Examines characteristics of English language learners (ELLs), key theories in language acquisition, the role of culture in language development, and instructional program models for ELLs, while considering implications for classroom instruction.
Equivalent to: TCE 572
Available via Ecampus

ED 573, INSTRUCTIONAL APPROACHES FOR ESOL EDUCATION, 3 Credits
Examines characteristics of standards-based content-area instruction for emergent bilinguals. Includes integration of content and language development, classroom-based assessment, and use of technology to support student learning.
Prerequisite: ED 572 with C or better
Equivalent to: TCE 573
Available via Ecampus

ED 574, PROJECT-BASED MATHEMATICS, 3 Credits
Building on the foundational concepts covered in ED 457 and ED 466/ED 566, students will plan and apply project-based lessons. Students will transfer knowledge and skills of mathematics to real world problems and will learn to teach with a project-based approach.

ED 575, INTEGRATED STEM, 3 Credits
Students will continue to develop their pedagogical content knowledge in science, technology, engineering, mathematics, and integrated STEM. Students will develop a deeper understanding of the crosscutting concepts common to all science endeavors and will learn how to use these concepts to bridge across science or STEM curriculum units. Students will also examine and develop expertise in using science and engineering practices to lead students in authentic inquiry. Integrating crosscutting concepts, science and engineering practices, and disciplinary core ideas, students will learn and practice the development of curriculum and instruction utilizing the engineering design process.

ED 576, PARTNERSHIPS AND IDEOLOGIES IN ESOL EDUCATION, 3 Credits
Considers social and political issues pertaining to educating English language learners. Focuses on exploring multiple ideologies in ESOL and building partnerships across schools, families, and communities.
Prerequisite: ED 572 with C or better
Equivalent to: TCE 576
Available via Ecampus

ED 577, DIFFERENTIATION FOR STUDENTS WITH SPECIAL NEEDS, 3 Credits
Building on the foundational concepts covered in HDFS 431, this course goes into greater depth on how to provide students with a range of exceptionalities with education in the least restrictive environment. Teacher candidates will explore differentiated instruction techniques for students with special needs that can be used in both the regular education and pull out Special Education resource classrooms.

ED 578, SPECIAL EDUCATION LAW RIGHTS AND REGULATIONS, 3 Credits
In-depth review of special education law and regulations that protect and provide educational rights for students with disabilities. Teacher candidates will leave the class understanding both the historical and current legal rights of students receiving special education and how to best meet those rights in both the regular and special education resource classrooms.

ED 579, LINGUISTICS FOR TEACHERS, 3 Credits
Explores linguistic categories: phonology, morphology, syntax, semantics, pragmatics, and discourse. Focuses on teaching implications—from psycholinguistic, sociolinguistic, and critical perspectives—for emergent bilingual students in P-12 contexts.
Prerequisite: ED 572 with C or better
Equivalent to: TCE 579
Available via Ecampus
ED 582, STRATEGIES FOR DEVELOPING LITERACY, 3 Credits
Focus on teaching of reading to K-5 students. Instruction in pedagogical techniques and assessment on teaching vocabulary, comprehension, phonics and fluency. Strategies related to motivation to read, integration of cultural diversity and social justice and the needs of diverse learners in literacy development are also addressed.

ED 584, LANGUAGE ARTS METHODS I: ADOLESCENT LITERACY, 4 Credits
Teaching language arts to middle and high school students requires a deep understanding of how reading and writing to learn occur. Guided by current professional and state literacy standards, students will learn to assess and advance adolescent reading comprehension, and writing and speaking skills.

ED 585, LANGUAGE ARTS METHODS II: STRATEGIES FOR GRADES 5-12, 4 Credits
Explores the integration and implementation of curriculum and high leverage instructional practices that respond to the learning needs of adolescents in language arts classrooms. Examines the importance of metacognitive strategies in the teaching of content-related skills and concepts, and how to create school cultures that support high achievement.

ED 586, LANGUAGE ARTS METHODS III: CURRICULUM AND THE PROFESSION, 4 Credits
Learning to teach language arts as a community of practice including the development of high-leverage instructional practices. Focus on enhancing classroom discourse and building student comprehension, meaning construction, interpretation, and response to complex text. Integration of technology tools for instruction and assessment.
Prerequisite: ED 584 with B or better and ED 585 [B]

ED 587, SOCIAL STUDIES METHODS I: ADOLESCENT LITERACY, 4 Credits
Teaching social studies to middle and high school students requires a deep understanding of how reading and writing to learn occur. Guided by current professional and state literacy standards, students will learn to assess and advance adolescent content reading comprehension, writing and speaking skills.

ED 588, SOCIAL STUDIES METHODS II: STRATEGIES FOR GRADES 5-12, 4 Credits
Explores the integration and implementation of curriculum and high leverage instructional practices that respond to the learning needs of adolescents in secondary social studies classrooms. Examines the importance of metacognitive strategies in the teaching of content-related skills and concepts, and how to create school cultures that support high achievement.

ED 589, SOCIAL STUDIES METHODS III: CURRICULUM AND THE PROFESSION, 4 Credits
Learning to teach social studies as a community of practice including the development of high-leverage instructional practices. Focus on curriculum strategies that provide opportunities for learners to develop and use facts, concepts, interpretations, and analyses to build and support arguments. Integration of technology tools for instruction and assessment.
Prerequisite: ED 587 with B or better and ED 588 [B]

ED 590, SOCIAL JUSTICE IN EDUCATION, 3 Credits
Examines social, environmental and ecological justice in educational settings focusing on bias critique in text, development of social justice curriculum, and creation of an action related to a social justice issue. The interconnectedness of social and ecological justice is also explored. Various international justice standards are used to ground students’ work in curriculum development.
Equivalent to: TCE 590
Available via Ecampus

ED 592, TECHNOLOGY TOOLS FOR TEACHING, 1 Credit
Develops technology skills needed to be successful as a classroom teacher. Explores how digital tools can be used in instruction, assessment, communication, and collaboration in educational settings to bring vibrant energy into student learning and engagement. Covers responsible digital citizenship, responsible use and ethics of technology in the classroom.

ED 594, DIFFERENTIATION, 2 Credits
Issues of K-12 learner and the role of culture, language, and group identification in learning will be examined and applied to the consideration of differentiated instructional strategies.

ED 595, EDUCATIONAL DEVELOPMENT, 2 Credits
Issues of K-12 learner social/emotional/cognitive development across multiple areas of learning will be examined, with consideration given to impact on classroom pedagogy.

ED 596, TECHNOLOGY FOR EDUCATORS, 3 Credits
Explore the integration of current and emerging technologies into K-12 content areas by engaging learners in real world issues and learning in a social context. Integrate technologies that promote critical thinking, communication, collaboration, and creativity. Discuss technologies in terms of cultural linguistic diversity. Gain transferable skills. Taught via Ecampus only.
Equivalent to: TCE 596
Recommended: Basic computer literacy.
Available via Ecampus
ED 597, K-5 STEM INTEGRATION IN DIVERSE CLASSROOMS, 2 Credits
An investigation of theory and practice related to science teaching and learning in diverse classrooms through integration of science, math, literacy and social studies.
Available via Ecampus

ED 599, SPECIAL TOPICS, 1-4 Credits
Equivalent to: TCE 599
This course is repeatable for 90 credits.

ED 601, RESEARCH, 1-16 Credits
Equivalent to: TCE 601
This course is repeatable for 16 credits.

ED 602, INDEPENDENT STUDY, 1-16 Credits
Equivalent to: TCE 602
This course is repeatable for 16 credits.

ED 603, THESIS, 1-16 Credits
Equivalent to: TCE 603
This course is repeatable for 99 credits.

ED 605, READING AND CONFERENCE, 1-16 Credits
Equivalent to: TCE 605
This course is repeatable for 16 credits.

ED 606, PROJECTS, 1-16 Credits
Equivalent to: TCE 606
This course is repeatable for 16 credits.

ED 607, SEMINAR, 1-16 Credits
Equivalent to: TCE 607
This course is repeatable for 16 credits.

ED 608, WORKSHOP, 1-16 Credits
Equivalent to: TCE 608
This course is repeatable for 16 credits.

ED 609, PRACTICUM/CLINICAL EXPERIENCE, 1-16 Credits
Equivalent to: TCE 609
This course is repeatable for 16 credits.

ED 610, INTERNSHIP, 1-15 Credits
Equivalent to: TCE 610
This course is repeatable for 15 credits.

ED 620, RESEARCH DESIGN AND EPistemologies, 3 Credits
Analysis of multiple research designs and epistemologies in education research. Development of critical reading of research and synthesis across related literature. Consideration of epistemologies and theoretical traditions in educational scholarship and how they shape research design. Exploration of the historical and ethical contexts of empirical research in related educational fields.
Equivalent to: SED 580

ED 622, QUALITATIVE RESEARCH TECHNIQUES IN EDUCATION, 3 Credits
A study of qualitative research designs and analytical procedures with specific applications in education.
Prerequisite: SED 580 with C or better or ED 620 with C or better
Equivalent to: SED 622

ED 624, QUANTITATIVE RESEARCH DESIGN AND CRITICAL ANALYSIS, 3 Credits
A study of quantitative research designs and analytical procedures with specific applications in education.
Prerequisite: ED 620 with C or better or SED 580 with C or better
Equivalent to: SED 612

ED 650, EQUITY AND EDUCATION POLICY, 3 Credits
Introduces students to key educational policy debates, with a particular focus on attempts to use education policy to advance equity. Examines different visions for the purpose of education and different definitions of equity. Explores the roles of different actors within education policy, including legislators, courts, and non-governmental organizations. Provides students with frameworks for analyzing education policy, which students will then apply to analyze a current policy debate that is of interest to them.

ED 651, RESEARCH BILINGUALISM AND MULTILINGUALISM, 3 Credits
Develops critical research skills to create new knowledge in the field of multilingualism. Examines interdisciplinary and intersectional perspectives to consider notions of identity among multilinguals and explore the historical trajectory of bilingualism and multilingualism research. Provides a broad understanding of the theoretical and methodological frameworks used to study bilingualism and multilingualism in globalized contexts.

ED 652, ETHNOGRAPHIC METHODS, 3 Credits
As an advanced qualitative method class, this course introduces theory and ethnographic research methods by presenting the various ways by which socio-cultural anthropologists observe and analyze phenomena, groups or individuals in everyday language and social practices in their local and global contexts, taking into account issues of language, equity and educational policy. Students will carry out an ethnographic research project of a particular phenomenon they wish to learn more about.
Prerequisite: SED 622 with B or better

ED 653, DISCOURSE, IDENTITY AND EDUCATION, 3 Credits
Builds a foundation in discourse theory and its applications to identity and education. Includes empirical studies that draw from particular lenses of discourse theory, exemplifying how these scholars organize the design, implementation, and discussion of research around discourse theory. Develops knowledge of discourse theory to propose a study that could be conducted drawing from discourse analytic perspectives.
ED 808, WORKSHOP, 1-4 Credits
Equivalent to: TCE 808
This course is repeatable for 16 credits.

Science and Mathematics Education (SED)
SED 401, RESEARCH, 1-16 Credits
This course is repeatable for 16 credits.
SED 405, READING AND CONFERENCE, 1-16 Credits
This course is repeatable for 16 credits.
SED 406, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.
SED 407, SEMINAR, 1-16 Credits
This course is repeatable for 16 credits.
SED 409, FIELD PRACTICUM: SCIENCE AND MATHEMATICS, 3 Credits
Placement in middle or high school (grades 7-12) to assist in developing competencies with adolescents in science/mathematics classes.
This course is repeatable for 18 credits.
SED 412, TECHNOLOGY FOUNDATIONS FOR TEACHING MATH AND SCIENCE, 3 Credits
Integration of instructional technologies with other strategies to teach math and science in elementary, middle, and secondary schools in the 21st century.
Equivalent to: SED 412H
SED 413, INQUIRY IN SCIENCE AND SCIENCE EDUCATION, 3 Credits
Investigation of inquiry and the nature of inquiry in science as it relates to science education. Students will examine issues relating to integrating scientific understandings and practice into K-12 instruction.
Available via Ecampus
SED 414, INQUIRY IN MATHEMATICS AND MATHEMATICS EDUCATION, 3 Credits
Investigation of mathematics as it relates to mathematics education. Students will examine issues related to integrating mathematical understanding, mathematics standards/curricula, and mathematics-specific strategies in K-12 instruction. Lec/lab.
SED 416, INQUIRY IN SCIENCE AND MATHEMATICS EDUCATION, 3 Credits
Investigation of inquiry and the nature of inquiry in mathematics and science as it relates to education. Students will examine issues relating to integrating mathematical and scientific understandings and practices into K-12 education.
SED 419, TEACHING MATHEMATICAL MODELING IN STEM, 3 Credits
Provides students an overview of the content requirements in the Common Core Standards for Mathematics and the teaching practices that are central to those standards with a focus on the role of mathematical modeling. Students experience content lessons and lessons focused on supporting students in developing understanding of that content.
Recommended: Background in an educational setting or as a pre-service teacher at any level, a K-12 teacher or free-choice learning educator
SED 431, OVERVIEW OF FREE-CHOICE LEARNING, 3 Credits
Examines learning that occurs when people believe they have choices over what and how they learn, how much time they spend learning, and what their sources of information are. Covers current research on learning in museums, aquariums, zoos, botanical gardens, science centers, after-school programs, media and apprenticeships.
SED 435, COMMUNICATING OCEAN SCIENCES TO INFORMAL AUDIENCES, 3 Credits
For students interested in improving their ability to communicate their scientific knowledge by helping general public and student audiences learn about ocean sciences in a wide variety of learning settings. Combines instruction in inquiry-based teaching methods and learning theory with work in student’s local informal learning settings like museums, zoos, aquariums and libraries.
SED 459, SCIENCE AND THE NATURE OF INQUIRY, 3 Credits
Focuses on inquiry approaches to the teaching and learning of science. Development of teaching strategies including materials and resources for teaching science using an inquiry approach as well as more teacher-directed approaches.
SED 473, SCIENCE PEDAGOGY AND TECHNOLOGY I, 4 Credits
Development of pedagogical content knowledge in grades 6-12 science instruction: learning theory, nature of science, technology integration, and reform recommendations. Lec/lab/rec.
SED 474, MATHEMATICS PEDAGOGY AND TECHNOLOGY I, 4 Credits
Development of pedagogical content knowledge in grades 6-12 mathematics instruction: learning theory, nature of mathematics, technology integration, and reform recommendations.
Recommended: Investigation of mathematics as it relates to mathematics education and SED 414
SED 476, MATHEMATICS PEDAGOGY AND TECHNOLOGY II, 4 Credits
Development of additional pedagogical content knowledge in grades 6-12; stress on dominant themes of the school mathematics curriculum including problem solving, reasoning, communication, and connections as well as the integration of technology into the mathematics classroom.
Prerequisite: SED 474 with D- or better
SED 477, SCIENCE PEDAGOGY AND TECHNOLOGY II, 4 Credits
Development of pedagogical content knowledge in grades 6-12; science instruction; learning theory, nature of science, technology integration, and reform recommendations.
Prerequisite: SED 473 with C or better

SED 499, SPECIAL TOPICS, 3 Credits
PREREQ: Provisional acceptance to Education Double Degree program. This course is repeatable for 18 credits.

SED 501, RESEARCH, 1-16 Credits
This course is repeatable for 16 credits.

SED 503, THESIS, 1-16 Credits
This course is repeatable for 999 credits.

SED 505, READING AND CONFERENCE, 1-16 Credits
This course is repeatable for 16 credits.

SED 506, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.
Available via Ecampus

SED 507, SEMINAR, 1-16 Credits
This course is repeatable for 16 credits.

SED 508, WORKSHOP, 1-16 Credits
This course is repeatable for 16 credits.

SED 509, PRACTICUM, 1-16 Credits
This course is repeatable for 16 credits.

SED 510, PROFESSIONAL INTERNSHIP: SCIENCE OR MATHEMATICS EDUCATION, 1-16 Credits
Supervised teaching experience at the elementary, middle or high school level; students experience general classroom and professional responsibilities common to the regular science or mathematics teacher.
This course is repeatable for 16 credits.
Available via Ecampus

SED 511, ANALYSIS OF CLASSROOMS I, 3 Credits
Observation and analysis of the complex science/ mathematics classroom (grades 3-12) and school culture and their impact on student learning.

SED 512, TECHNOLOGY FOUNDATIONS FOR TEACHING MATH AND SCIENCE, 3 Credits
Integration of instructional technologies with other strategies to teach math and science in elementary, middle, and secondary schools in the 21st century.

SED 513, INQUIRY IN SCIENCE AND SCIENCE EDUCATION, 3 Credits
Investigation of inquiry and the nature of inquiry in science as it relates to science education. Students will examine issues relating to integrating scientific understandings and practice into K-12 instruction.

SED 514, INQUIRY IN MATHEMATICS AND MATHEMATICS EDUCATION, 3 Credits
Investigation of mathematics as it relates to mathematics education. Students will examine issues related to integrating mathematical understanding, mathematics standards/curricula, and mathematics-specific strategies in K-12 instruction. Lec/lab.

SED 516, INQUIRY IN SCIENCE AND MATHEMATICS EDUCATION, 3 Credits
Investigation of inquiry and the nature of inquiry in mathematics and science as it relates to education. Students will examine issue relating to integrating mathematical and scientific understandings and practices into K-12 education.

SED 519, TEACHING MATHEMATICAL MODELING IN STEM, 3 Credits
Provides students an overview of the content requirements in the Common Core Standards for Mathematics and the teaching practices that are central to those standards with a focus on the role of mathematical modeling. Students experience content lessons and lessons focused on supporting students in developing understanding of that content.
Recommended: Background in an educational setting or as a pre-service teacher at any level, a K-12 teacher or free-choice learning educator

SED 520, TECHNOLOGY FOR MATH AND SCIENCE EDUCATION, 3 Credits
Explore current and emerging technologies applied to math and science learning that promote critical thinking, communication, collaboration, and creativity. Gain technology skills and resources that can be transferred to formal and informal learning environments.
Recommended: Basic computer literacy.

SED 531, OVERVIEW OF FREE-CHOICE LEARNING, 3 Credits
Examines learning that occurs when people believe they have choices over what and how they learn, how much time they spend learning, and what their sources of information are. Covers current research on learning in museums, aquariums, zoos, botanical gardens, science centers, after-school programs, media and apprenticeships.

SED 535, COMMUNICATING OCEAN SCIENCES TO INFORMAL AUDIENCES, 3 Credits
For students interested in improving their ability to communicate their scientific knowledge by helping general public and student audiences learn about ocean sciences in a wide variety of learning settings. Combines instruction in inquiry-based teaching methods and learning theory with work in student’s local informal learning settings like museums, zoos, aquariums and libraries.
SED 541, WEATHER CONCEPTS FOR SCIENCE AND MATH TEACHING, 3 Credits
Science content and pedagogy in learning and teaching basic weather concepts.
**Recommended:** Background in an educational setting or as a K-12 teacher or free-choice learning educator

SED 550, HIGH QUALITY SCIENCE AND MATHEMATICS INSTRUCTION, 3 Credits
Explores high quality science and mathematics instruction to prepare professional teachers in science and mathematics. Develops skills in high-leverage instructional practices and reviews research literature that supports these practices. Investigates social justice issues related to systems of schooling in the United States.

SED 552, MATHEMATICS METHODS: PRACTICUM I, 3 Credits
Theoretical background, practical knowledge, and skills for teaching in mathematics classrooms (grades 3-12). Instructional methods/modes, classroom management, contemporary curriculum goals and instructional planning.

SED 553, SCIENCE METHODS/PRACTICUM I, 3 Credits
Theoretical background, practical knowledge, and skills for teaching in science classrooms (grades 3-12). Instructional methods/modes, classroom management, contemporary curriculum goals and instructional planning.

SED 554, MATHEMATICS PEDAGOGY AND TECHNOLOGY I, 4 Credits
Development of pedagogical content knowledge in grades 6-12 mathematics instruction: learning theory, nature of mathematics, technology integration, and reform recommendations.
**Recommended:** Background in education or as a K-12 teacher or free-choice learning educator

SED 556, ENGINEERING AND SCIENCE IN THE LIVES OF STUDENTS, 3 Credits
Explore the use of construction engineering as a vehicle to make science and math more relevant and useful for the everyday life of students.
**Recommended:** Background in an educational setting or as a K-12 teacher or free-choice learning educator (e.g. museum, science camp)

SED 556, FOSTERING REFLECTIVE DISCOURSE IN SCIENCE AND MATH CONTEXTS, 3 Credits
Examines ways of speaking that foster learning in science and mathematics contexts such as K-16 classrooms and free-choice learning settings (i.e., museums, zoos, science camps, etc.). Assignments assume the participant is a K-12 teacher or free-choice learning educator enrolled in a graduate licensure program or has access to an educational setting.

SED 557, SCIENCE PEDAGOGY AND TECHNOLOGY I, 4 Credits
Development of pedagogical content knowledge in grades 6-12 science instruction: learning theory, nature of science, technology integration, and reform recommendations. Lec/lab/rec.

SED 560, ENGINEERING AND SCIENCE IN THE LIVES OF STUDENTS, 3 Credits
Explore the use of construction engineering as a vehicle to make science and math more relevant and useful for the everyday life of students.
**Recommended:** Background in an educational setting or as a K-12 teacher or free-choice learning educator (e.g. museum, science camp)

SED 562, PERSONAL DIMENSIONS OF FREE-CHOICE LEARNING, 3 Credits
Investigates the fundamental roles that identity, motivation, interest, prior knowledge and experience, and choice and control play in supporting learning and how learning leaders can build on these dimensions of learning in order to successfully engage lifelong learners.
**Available via Ecampus**

SED 563, SOCIO-CULTURAL DIMENSIONS OF FREE-CHOICE LEARNING, 3 Credits
Investigates connections between theories of free-choice learning and the fundamental concepts of sociology, social psychology and anthropology, social stratification, social structure and interaction, social institutions, and cultural background. Real world examples will be included to support learning leaders’ efforts to facilitate the socio-cultural dimensions of lifelong science and mathematics learning.
**Available via Ecampus**

SED 564, PHYSICAL DIMENSIONS OF FREE-CHOICE LEARNING, 3 Credits
Learning is influenced by the interaction of variables within three contexts—personal, socio-cultural and physical. This course focuses on how macro-scale environmental factors (e.g. space, crowding, novelty) and micro-scale environmental factors (e.g. design elements, real objects, different media) support free-choice learning.
**Available via Ecampus**
SED 592, PROFESSIONAL DEVELOPMENT AND PRACTICUM IN SCIENCE, 3 Credits
Developing and implementing a program for continuing learning and evaluation in science education.

SED 594, ADVANCED INSTRUCTIONAL STRATEGIES IN SCIENCE AND MATHEMATICS, 3 Credits
Explore instructional strategies and skills for K-12 science and math teachers to support student learning rigorous content.

SED 595, ASSESSMENT AND EVALUATION, 3 Credits
Examines education assessment focusing on formative assessment in multiple contexts across learning environments.

SED 597, PROFESSIONAL DEVELOPMENT IN MATHEMATICS AND SCIENCE EDUCATION, 3 Credits
Development of strategies and skills for developing, implementing and evaluating a program of professional development for mathematics or science educators considering various choices of program settings.

SED 598, MATHEMATICS AND SCIENCE CURRICULUM, 3 Credits
Current trends, history of these trends, and rationale for mathematics and science curriculum reform across learning environments.

SED 599, TOPICS IN SCIENCE EDUCATION, 3 Credits
Current issues, trends, and topics in science education. May be repeated for credit with different topics. This course is repeatable for 18 credits.

SED 601, RESEARCH, 1-16 Credits
This course is repeatable for 16 credits.

SED 603, DISSERTATION, 1-16 Credits
This course is repeatable for 999 credits.

SED 605, READING AND CONFERENCE, 1-16 Credits
This course is repeatable for 16 credits.

SED 606, PROJECTS, 1-16 Credits
This course is repeatable for 16 credits.

SED 607, SEMINAR, 1-16 Credits
This course is repeatable for 16 credits.

SED 608, WORKSHOP, 1-16 Credits
This course is repeatable for 16 credits.

SED 611, SURVEY OF RESEARCH ON TEACHING, 3 Credits
Critical analysis of perspectives of research in science/math education with a focus on teaching as the unit of analysis.
Prerequisite: SED 580 with C or better

SED 613, LEARNING THEORY, 3 Credits
Provides a critical overview and analysis of current theories of learning and development, beginning with a discussion about what learning is, how it has been viewed and studied over time, and how seminal theories inform an understanding of lifelong learning and its facilitation.
Prerequisite: SED 580 (may be taken concurrently) with C or better

SED 615, PRACTICUM IN MATHEMATICS/SCIENCE IN COLLEGE TEACHING, 3 Credits
Supervised field practicum in college mathematics/science teaching. This course is repeatable for 9 credits.

SED 621, SURVEY OF RESEARCH ON LEARNING, 3 Credits
Critical analysis of perspectives on student thinking and learning in science/math education.
Prerequisite: SED 580 (may be taken concurrently) with C or better

SED 623, CURRICULUM THEORY, 3 Credits
Establishes theoretical grounding of curriculum. Includes theoretical background, practical knowledge, and skills related to science and mathematics curriculum, including the history, curriculum theory and practice.
Prerequisite: SED 580 (may be taken concurrently) with C or better

SED 625, CRITICAL PEDAGOGY, 3 Credits
Builds a foundation in critical pedagogy theory and practice. Includes reading of classic and contemporary literature by recognized thinkers in the fields of critical pedagogical studies, requiring careful evaluation of empirical research and synthesis to develop a coherent point of view. Develops methodologies for analyzing data using critical pedagogical theories and intersectional perspectives.

SED 699, SPECIAL TOPICS, 1-16 Credits
This course is repeatable for 16 credits.

SED 808, WORKSHOP, 1-16 Credits
This course is repeatable for 99 credits. Available via Ecampus