EDUCATION (EDUC)

Courses

EDUC 1020 (1) First Year Success at CU
Introduces first-year majors to campus resources and academic success strategies. Students learn about a wide range of topics, including time management, research, and student involvement. This course also serves as a forum for continued conversations about concepts from EDUC 3013: School in Society, as well as the social justice implications for emerging leaders and educators.
Repeatability: Repeatable for up to 2.00 total credit hours.
Requisites: Restricted to Education (EDUC) or Leadership/Community Engagement (LDCE) majors only.

EDUC 1500 (1) Success Strategies in Higher Education
Introduces students to learning theories and a range of college success strategies to deepen their engagement with their academic work. Students will learn metacognitive practices to identify the values and aims driving their academic ambitions and craft their most successful path through their undergraduate experience.
Repeatability: Repeatable for up to 2.00 total credit hours.
Grading Basis: Letter Grade
Additional Information: Departmental Category: General Education

EDUC 1580 (3) Energy and Interactions
Engages non-physics majors in hands-on, minds-on activities and labs to investigate the physical world, the nature of science, and how science knowledge is constructed. This introductory course is especially relevant for future elementary and middle school teachers although it will meet the needs of most non-physics and non-science majors. Physics content focuses on interactions and energy.
Equivalent - Duplicate Degree Credit Not Granted: PHYS 1580
Additional Information: Arts Sci Core Curr: Natural Science Non-Sequence
Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: General Education
MAPS Course: Natural Science
MAPS Course: Chemistry
MAPS Course: Physics

EDUC 2015 (1) Elementary Mathematics and Science Teaching for Social Justice
Working for social justice is central to teaching mathematics and science with elementary-aged children. This course engages prospective elementary teachers with a multitude of early math and science experiences that children draw upon to understand their worlds. Participants will develop interest-driven, culturally sustaining, and inclusive action plans for teaching math and science for social justice with young learners.
Requisites: Restricted to Elementary Education (EDEL) majors only.
Grading Basis: Letter Grade

EDUC 2020 (1) Step 1: Inquiry Approaches to Teaching STEM
Invites science, mathematics and engineering students to explore teaching as a career by providing first-hand experiences teaching science/math lessons in local elementary classrooms. Introduces theory and practice necessary to design and deliver excellent instruction. Master teachers provide ongoing support and feedback. Meets weekly on CU campus (1.5 hours/week) and involves five visits to an elementary school.
Requisites: Restricted to various majors within Math, Science, Engineering and Technology (STEM majors). Please see EDUC dept. for additional clarification.
Additional Information: Departmental Category: General Education

EDUC 2025 (1) Step 1: Inquiry Approach to Teaching in Informal Settings
Invites science, mathematics and engineering students to explore teaching and learning in informal K-12 environments. Introduces theory and practice necessary to design and deliver excellent instruction. Meets weekly on CU campus (1.5 hours/week) and requires participants to work a minimum of five hours with K-12 students at STEM-related special events such as science fairs, after school programs, and science camps.
Requisites: Restricted to AMEN, ASTR, BCHM, CHEM, EBIO, GEOG, IPHY, MATH, MCDB, PHYS, GEEN, NRSC, Arts and Sciences Open Option majors, Exploratory Studies or College of Engineering majors, or Education minors only.
Additional Information: Departmental Category: General Education

EDUC 2030 (1-2) Step 2: Inquiry-Based Lesson Design
Builds on EDUC 2020 and further develops lesson design and inquiry-based teaching practice. Offers opportunity to explore teaching career and learn about middle school culture. Master teacher provides support as students design and deliver lessons in middle school classrooms. Emphasizes assessment of student learning. Meets weekly on CU campus (1.5 hours/week) and involves five visits to a local middle school.
Requisites: Requires prerequisite of EDUC 2020 or EDUC 4610 (all minimum grade C).
Additional Information: Departmental Category: General Education

EDUC 2050 (1) Step Up to Social Justice Teaching
Engages students in theory and practice for justice-centered teaching. This first required course for majors introduces the principles guiding the elementary program and provides opportunities for students to enact those principles in collaboration with children and teachers in public school classrooms. Meets weekly on CU campus (1.25 hours/week). Involves additional visits to local schools.
Requisites: Restricted to School of Education (EDUC) undergraduates only
Additional Information: Departmental Category: General Education

EDUC 2125 (3) History of American Public Education
Provides an overview of the history of American education by exploring major reforms efforts from the common school movement to “Nation at Risk.” Examines what intellectuals were thinking about public schools and what ordinary people experienced in them. Assesses how differences in race/ethnicity, class, gender, and power shaped public schools.
Arts Sci Gen Ed: Distribution-Arts Humanities
Departmental Category: General Education
EDUC 2150 (3) Education in Film
Provides opportunities to view and analyze how facets of education are represented (or misrepresented) in film. Considers narratives constructed about education and how these stories fuel popular conceptions of and assumptions about students, teachers, and schools. Examines how issues of race, class, and gender are embedded in how films represent schools, teachers, students, and communities.
Additional Information: Departmental Category: General Education

EDUC 2311 (3) Children's Literature and Literacy Engagement in Elementary Schools
Focuses on teaching children's literature in elementary schools & youth organizations. Participants will understand theoretical and developmental processes associated with literacy learning, methods for teaching literature in a diverse society, and the integration of classroom instruction with the Colorado Academic Content Standards that foster such processes.
Requisites: Restricted to Elementary Education (EDEL) or Education (EDUC-MIN) students only.
Additional Information: Departmental Category: Elementary Education

EDUC 2400 (3) Cultural Diversity and Awareness
Enhances students' self-awareness in a variety of educational and cultural settings. Investigates self within a cultural context, inviting students to engage more deeply with their cultural assumptions and lenses, as well as the cultural practices and beliefs of other distinct groups. Explores themes relating to diversity through works of fiction, cultural contexts, contemplative practices, poetry, music and experiential activities.
Additional Information: Departmental Category: General Education

EDUC 2411 (4) Educational Psychology for Elementary Schools
Integrates theories and ideas from elementary school child development, educational psychology and the learning sciences. Explores theories of learning and child development and considers implications for teaching, student engagement and the design of equitable and effective learning environments. Students are required to attend a practicum off-site for this class.
Additional Information: Departmental Category: General Education

EDUC 2500 (3) Strategies for Social Change
Examines strategies for social change locally and internationally. Critically explores a range of social change case studies including: community organizations, social movements, social entrepreneurship, philanthropy, political and legal advocacy and technology. Students will develop their own proposal for a social change initiative.
Grading Basis: Letter Grade
Additional Information: Departmental Category: General Education

EDUC 2625 (3) Teaching English as a Second Language
Exposes students to strategies used to teach English as a second or foreign language. Covers both theoretical and applied aspects of language learning and teaching. Exposes students to techniques, activities, strategies and resources to plan instruction for students learning English as a second language. Emphasizes oral language development, literacy and content-area instruction for teaching K-12 students.
Additional Information: Departmental Category: General Education

EDUC 2800 (1-3) Special Topics
Designed to meet needs of students with topics of interest.
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: General Education

EDUC 2910 (1-3) Field Practicum 1
Offers supervised campus and off-campus experiences tied to course work in the INVST program. See also EDUC 2920.
Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: General Education

EDUC 2919 (3) Renewing Democracy in Communities and Schools
Examines curriculum theory, K-12 reform, and the concepts of citizenship, democracy, power, and diversity through classroom discussion and participation in a school-based Public Achievement program. Students will dialogue with diverse groups of people; identify multiple perspectives around controversial issues; and learn to use research and writing to articulate public problems and advocate for their solutions.
Equivalent - Duplicate Degree Credit Not Granted: INVS 2919
Repeatable: Repeatable for up to 6.00 total credit hours.
Additional Information: Arts Sci Core Curr: Human Diversity
Arts Sci Gen Ed: Diversity-U.S. Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: General Education

EDUC 2920 (1-3) Field Practicum 2
Offers supervised campus and off-campus experiences tied to course work in the INVST program. See also EDUC 2910.
Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: General Education

EDUC 3013 (3) School and Society
Introduces students - both future teachers and those simply interested in education - to pressing issues surrounding education within the United States. The course reveals the complex relationship between schools and the larger society of which they are a part. Examines issues of diversity and equity from different disciplinary lenses, including history, philosophy, sociology and anthropology.
Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) only.
Additional Information: Arts Sci Core Curr: Human Diversity
Arts Sci Core Curr: Contemporary Societies
Arts Sci Gen Ed: Diversity-U.S. Perspective
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: General Education

EDUC 3350 (3) Dis/Ability in Contemporary Classrooms
Examines major issues in special education focusing on a) developing an inclusive stance to teaching all students; b) understanding laws, responsibilities and RTI/MTSS; c) planning for and delivering differentiated instruction in a universally designed classroom environment; e) the social construction and identification of dis/abilities; f) understanding potential variations across federal disabilities categories; g) teaching students with gifts and talents and; h) collaborating with families and professionals.

EDUC 3570 (3) Learning With Technology In and Out of School
Examines ways digital media are changing the way young people learn, play, make friends, and participate in civic life. Studies widely implemented digital tools intended to support literacy, math, and science learning of children ages 4-18. Involves brief internship (5 hours outside class) and design projects that integrate these tools to transform in either a classroom or after-school program.
Additional Information: Departmental Category: General Education
EDUC 3621 (1-3) Art for the Elementary Teacher
Introduces elementary education students to art education. Introduces many visual art techniques, art media and processes used in art education. Includes hands-on studio art experiences in a format that supports subjects such as literature, writing, music and social studies. Emphasizes the role of art education and materials in supporting the artistic development and visual literacy of children. Department enforced prerequisite: completion of 30 hours of course work.
Requisites: Restricted to School of Education (EDUC) undergraduates only
Additional Information: Departmental Category: Elementary Education

EDUC 4001 (3) Framing Equity and Justice in the Humanities Classroom
Critically frames learning to teach for equity and justice within schools as systems. Orientes students to the School of Education's mission and guiding principles of the Secondary Humanities program. Provides opportunities for students to enact those principles with mentor teachers in local classrooms. Meets weekly on CU campus and involves a minimum of 50 hours in local schools.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5001
Grading Basis: Letter Grade

EDUC 4015 (3) International / Comparative Education
Comparatively studies education in other countries, emphasizing its role in developing nations, with an emphasis on successful models in basic literacy, primary education, secondary curriculum and teacher education. Analyzes political, social and economic policies and ideologies for their relevance to the development process, including the role of international organizations: World Bank, UNICEF, UNESCO, Peace corps and Volunteer Agencies.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5015
Additional Information: Departmental Category: General Education

EDUC 4023 (3) Differentiating Instruction in Diverse Secondary Classrooms
Focuses on teaching culturally and linguistically diverse students, special education students, and differentiation in the classroom. Emphasizes evidence-based teaching practices and programmatic interventions that support student learning. Includes practicum.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4351
Requisites: Restricted to EDUC, EDEN, EDSP or MMED majors only.
Additional Information: Departmental Category: Secondary Education

EDUC 4050 (3) Knowing and Learning in Mathematics and Science
Explores current theories of learning in mathematics and science at the secondary level. This course focuses on learners' opportunities to learn mathematics and science in a classroom context from the perspective of different theoretical orientations. Students examine their own assumptions about learning, and critically examine the needs of a diverse student population in the classroom.
Requisites: Restricted to AMEN, ASTR, BCHM, CHEM, EBIO, GEOG, IPHY, MATH, MCDB, PHYS, GEEN, NRSC, Arts and Sciences Open Option majors, Exploratory Studies or College of Engineering majors, or Education minors only.
Additional Information: Departmental Category: Secondary Education

EDUC 4060 (3) Classroom Interactions
Students design and implement instructional activities informed by what it means to know and learn mathematics and science, and then evaluate the outcomes of those activities on the basis of classroom artifacts. Students examine how content and pedagogy combine to make effective teaching. Students are required to work in a classroom 4 hours per week.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5060
Requisites: Restricted to School of Education (EDUC), Mathematics-Secondary Education (EDMA) or Science-Secondary Education (EDSC) majors only.
Additional Information: Departmental Category: Secondary Education

EDUC 4112 (3) Adolescent Development and Learning for Teachers
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students' everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.
Equivalent - Duplicate Degree Credit Not Granted: PSYC 4114 and EDUC 5112

EDUC 4125 (3) Secondary World Language Methods
Presents and discusses issues in secondary school curriculum, instruction, and classroom management as they play out in world language classroom. Examines, analyzes, and evaluates a variety of teaching strategies, their effectiveness for students, and teacher dispositions to facilitate learning. Includes in-school experiences.
Requisites: Restricted to EDEN, EDFR, EDGR, EDIT, EDJP, EDLT, EDMA, EDMU, EDSC, EDRU, EDSP or MMED majors only.
Additional Information: Departmental Category: Secondary Education

EDUC 4135 (3) Story and Memoir
Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods. Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods. Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods. Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods. Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods. Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5135
Additional Information: Departmental Category: Secondary Education

EDUC 4150 (3) Introduction to Qualitative Research Methods
Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods.

EDUC 4161 (1-3) Children's Literature
Addresses reading and evaluation of books, children’s, interests, authors and illustrators, folk literature, multicultural literature, modern fanciful tales, and trends.
Additional Information: Departmental Category: General Education
EDUC 4222 (3) Language Study for Educators
Focuses on the nature of linguistic development and performance. Examines works that reflect a range of scholarly approaches to language study, explores language use both in and out of school, takes up the relationships between language practices and power and considers implications for classroom teaching.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5222
Additional Information: Departmental Category: General Education

EDUC 4232 (3) Language and Literacy across the Curriculum
Explores the relationship between language and learning in math and science classrooms with the goal of developing teaching practices that engage students in using language as a tool for understanding and constructing meaning across the curriculum. Explores how language/ literacy take on different forms and functions in different social contexts and academic disciplines.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5235
Requisites: Restricted to undergraduate Science-Secondary Education (EDSC) or Mathematics-Secondary Education (EDMA) majors only.
Additional Information: Departmental Category: Secondary Education

EDUC 4240 (3) African American Education in the United States
Explores development of schooling for African Americans in the U.S.. Emphasizes historical and contemporary struggles of this group in their quest to access meaningful educational opportunities. Examines how social, economic, political, and judicial action defined and organized policy and practice for this group. EDUC 4240 and 6240 are identical courses.
Additional Information: Departmental Category: General Education

EDUC 4295 (3) Narrative and Story in the Humanities
Explores a wide variety of texts that might be used in secondary English and Social Studies classrooms. Examines philosophies and instructional approaches to the teaching of reading and literature. Considers the influence of story and storytelling in the construction of personal and societal meaning.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5295
Requisites: Requires prerequisite of EDUC 4001 or EDUC 5001 (minimum grade C). Restricted to teacher licensure students in English (EDEN-LICU) or Social Studies (EDSS-LICU).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Secondary Education

EDUC 4301 (3) Queer-ing Topics in Education
Bring critical and queer theoretical perspectives to bear on an inquiry into what's counted as “normal” in social, historical, and political contexts of education in the United States. We'll explore queerness, queer theory, and queer pedagogy, in an effort to examine schooling as a heteronormative institution that has tended toward (re)producing heterosexism, homophobia, and violence against queer bodies and identities.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5301
Grading Basis: Letter Grade
Additional Information: Departmental Category: General Education

EDUC 4310 (3) Social and Emotional Learning in Schools
Explore the ways SEL benefits students through investigating its purposes and goals, the competencies it seeks to promote, the characteristics of effective programs, and the range of program formats. We frame these topics through examining ongoing dilemmas in the field. We also conduct in-depth reviews of several programs and the research that supports them.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5310

EDUC 4315 (3) Perspectives on Science
Explores contemporary ideas and issues in the history, philosophy and sociology of science education and science, science as a social and cultural activity and how contemporary issues in science relate to and impact educational practice.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5315
Additional Information: Departmental Category: General Education

EDUC 4317 (3) Perspectives on Mathematics
Explores the historical development of mathematics as a human construct, and the relationship between the discipline and the contemporary school mathematics curriculum. Focuses on the sociology of mathematics education and how cultural traditions and societal needs influence the school mathematics curriculum and educational practice.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5317

EDUC 4318 (3) The Nature of “English Language Arts
Considers historical and ongoing controversies concerning the nature of “English” as an academic field of study and of “English Language arts” as a school subject. Integrates understandings of subject-matter specialization, of approaches to teaching this contested subject, and of the diverse learners that teachers seek to prepare for 21st century literacies.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5318
Additional Information: Departmental Category: General Education

EDUC 4320 (3) Reading Instruction for Elementary Schools
Participants will engage theories and processes of literacy learning, reading development, and equity-oriented teaching. Students will learn, develop, and enact instructional strategies and lessons to support all students' successful participation in a range of print and multimodal literacy practices embedded in reading instruction in elementary classrooms.
Requisites: Requires corequisite course of EDUC 4321. Restricted to Elementary Education (EDEL) majors only.
Additional Information: Departmental Category: Elementary Education

EDUC 4321 (3) Writing Instruction for Elementary Schools
Participants will engage theories and processes of literacy learning, writing development, and equity-oriented teaching. Students will learn, develop, and enact instructional strategies and lessons to support all students’ successful participation in a range of multimodal literacy practices embedded in writing instruction in elementary classrooms.
Requisites: Requires corequisite course of EDUC 4320. Restricted to Elementary Education (EDEL) majors only.
Additional Information: Departmental Category: Elementary Education

EDUC 4325 (3) Queering Literacy in Secondary Classrooms
Engages theories and practices of literacy teaching and learning that challenge multiple forms of oppression. Using the tools of queer pedagogy, students will learn, develop, and enact strategies for planning and implementing literacy instruction that moves beyond inclusion of differences in the English/language arts and social studies curriculum.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5325
Requisites: Restricted to students with an English-Secondary Education Licensure plan (EDEN-LICU) or Social Studies-Secondary Education Licensure plan (EDSS-LICU).
Grading Basis: Letter Grade
EDUC 4330 (3) Secondary Social Studies Methods I
Explores effective social studies teaching techniques used to prepare secondary students for success in college, career, and civic life. An emphasis is placed on interpreting sources, understanding multiple perspectives, and employing critical thinking with diverse students.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5330
Requisites: Requires prerequisite of EDUC 4001 or EDUC 5001 (both minimum grade C-). Requires corequisite of EDUC 4901. Restricted to teacher licensure students in Social Studies (EDSS-LICU).
Grading Basis: Letter Grade
EDUC 4331 (3) Elementary Social Studies Methods
Prepares teacher education candidates for teaching social studies in a social justice and equity context. Participants will understand theoretical and developmental processes associated with social studies learning, culturally responsive teaching pedagogy in social studies, methods for teaching social studies in a diverse society, and the integration of classroom instruction with the Colorado Academic Content Standards.
Requisites: Requires corequisite courses of EDUC 5215 and EDUC 4341. Restricted to Elementary Education (EDEL) majors only.
Additional Information: Departmental Category: Elementary Education

EDUC 4341 (3) Elementary Reading Assessment and Instruction
Builds on knowledge and teaching practices introduced in EDUC 4320. Addresses five critical components of reading. Refines understanding of research-based practices for diagnostic assessments and intervention, and teaching strategies for elementary age learners. Prepares candidates to deliver a comprehensive reading curriculum in the elementary grades.
Requisites: Requires corequisite courses of EDUC 4331 and EDUC 5215. Restricted to Elementary Education (EDEL) majors only.
Additional Information: Departmental Category: Elementary Education

EDUC 4345 (3) Secondary English Methods I
Explores the underlying principles and philosophies of several approaches to the teaching of English in the areas of language, writing, and speaking and the practical application of these methods in the secondary classroom. Provides support in constructing activities, assignments, assessments, and units that meet the differentiated needs of students given their diverse identities, lives, interests, and needs.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5345
Requisites: Requires a prerequisite of EDUC 4001 or EDUC 5001 (both minimum grade C-). Requires corequisite of EDUC 4901. Restricted to teacher licensure students in English (EDEN-LICU).
Additional Information: Departmental Category: Secondary Education

EDUC 4351 (3) Language and Equity in Inclusive Learning Environments
Focuses on responsive instructional approaches for elementary school students, including culturally and linguistically diverse students requiring special education services. Addresses relevant educational laws and policies aimed at protecting students’ rights to a quality education. Includes practicum experiences in elementary school settings.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4023
Requisites: Requires corequisite course of EDUC 5205. Restricted to Music (EDMU) Education majors or Elementary (EDEL) majors only.
Additional Information: Departmental Category: Elementary Education

EDUC 4375 (3-4) Problem-Based Math Instruction
Focuses on curriculum, materials, methods and assessment, and related aspects of instruction. Introduces best practices in teaching mathematics in middle and high schools. Students are required to work in a classroom 4 hours per week. Examines the Colorado Academic Content Standards.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5375
Requisites: Restricted to EDCI, EDSC, or EDMA majors only.
Recommended: Corequisite EDUC 4023.

EDUC 4425 (3) Foundations of Bilingual/Multicultural Education
Provides a comprehensive survey of bilingual-multicultural education programs for emergent bilingual students. Includes an overview of the history and legislation related to the education of emergent bilingual students, as well as the various models, theoretical and philosophical underpinnings, and pedagogical practices that constitute sound educational practices for emergent bilingual students.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5425
Additional Information: Departmental Category: General Education

EDUC 4435 (3) Culturally Sustaining Pedagogies for Bilingual Learners
Explores multicultural education, critical pedagogy, and culturally sustaining pedagogies, including their underlying theories, curriculum design, and curriculum examples. Students will analyze curriculum with a focus on its representation of different socio-cultural groups, identities, points of view, relationship to different communities, and ideology. Students will also begin planning, teaching, and evaluating instruction anchored in critical, culturally sustaining pedagogies.
Requisites: Restricted to Elementary Education (EDEL) majors only.

EDUC 4455 (3) Methods of Biliteracy Instruction
Critique and analyze the linguistic, social, political and cultural factors that influence the acquisition of literacy for emerging bilingual (EB) learners. We will examine and apply evidence-based practices that support the development of reading, writing, speaking and listening in all of the students’ languages regardless of the program model schools enact to serve them.
Requisites: Restricted to Elementary Education (EDEL) majors only.

EDUC 4460 (3) Teaching and Learning Physics
Learn how people understand key concepts in physics. Through examination of physics content, pedagogy and problems, through teaching, and through research in physics education, students will explore the meaning and means of teaching physics. Students will gain a deeper understanding of how education research is done and how people learn. Useful for all students, especially for those interested in physics, teaching, and education research.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5460 and PHYS 4460 and PHYS 5460
Requisites: Requires prerequisite courses of PHYS 3210 and PHYS 3310 (all minimum grade C).
Additional Information: Departmental Category: Graduate Education

EDUC 4490 (3) Blurring Disciplinary Lines in the Humanities
Explores theories, methods, and materials for building interdisciplinary connections within and across secondary English and Social Studies classrooms. Provides opportunities for collaborative work in building lessons and unit plans that challenge disciplinary boundaries and advocate for complex problem solving.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5490
Requisites: Requires prerequisite of EDUC 4342 or EDUC 5342 or EDUC 4330 or EDUC 5330 (all minimum grade C-). Restricted to teacher licensure students in English (EDEN-LICU or EDEN-LICG) or Social Studies (EDSS-LICU or EDSS_LICG).
Grading Basis: Letter Grade

EDUC 4500 (3) Community-Based Research for Social Change
Complete a research project that draws on theories of social change and is developed in partnership with a community or civic agency. Become skilled at doing original research to address complex social problems.
Requisites: Requires prerequisite course of EDUC 2500 (minimum grade B-).
Grading Basis: Letter Grade
Additional Information: Departmental Category: General Education
EDUC 4513 (2) Education and Practice
Meets during student teaching assignment. Includes topics of concern to teachers, such as classroom organization and management, lesson planning, assessment, preparation of edTPA, etc.
Requisites: Requires corequisite course of EDUC 4691 or 4712 or 4722. Restricted to EDUC majors only.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Teacher Education

EDUC 4535 (3) Assessment for Bilingual Learners
Introduces students to the theory, methods, practice, and problems in the testing and assessment of bilingual students at the classroom and large-scale level. Topics include the specification of English Learners as a student population and the assessment of their language proficiency and academic achievement. The course additionally addresses reliability, validity, and fairness in the testing of linguistically diverse populations.
Requisites: Restricted to Elementary Education majors only.

EDUC 4610 (2) Becoming a Learning Assistant
Introduces undergraduate Learning Assistants (LAs) to education research, active learning, and strategies that support: (1) eliciting student ideas and helping all group members become active and engaged in the class; (2) listening and questioning; (3) building relationships; and (4) integrating learning theories with effective practices. Also "LA Pedagogy Course." Department enforced prerequisite: Learning Assistant Program admission. First-semester LAs requirement.
Grading Basis: Letter Grade
Additional Information: Departmental Category: General Education

EDUC 4615 (3) Language Acquisition for Bilingual Learners
Examines the variables that interact in the process of learning a second language and developing bilingualism/bi-literacy. These variables include the learner's background, motivation, linguistic, cognitive, emotional, social, cultural, and political factors. The course will examine these factors and generate understandings about how they work together to foster or inhibit successful development of bilingualism/bi-literacy in community, home and school contexts.
Requisites: Restricted to Elementary Education majors only.

EDUC 4691 (10) Student Teaching: Elementary School 1
Kindergarten through sixth grades. Department enforced prerequisite: completion of all education and content-specific arts and sciences requirements, and passing required licensure exam.
Requisites: Requires corequisite course of EDUC 4513. Restricted to EDEL-LICU or LICG majors only.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Teacher Education

EDUC 4706 (3) Assessment in Mathematics and Science Education
Examines purposes and practices of assessment in mathematics and science education. Particular attention is given to application of theoretical foundations and contemporary research in the design and use of assessment techniques and tools to support teaching for student understanding. Addresses the role of effective formative assessment in teaching and learning.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5706

EDUC 4712 (10) Student Teaching: Secondary School
Student teacher apprentices in a middle/junior or senior high school. Must be admitted to a secondary teacher education program in English, Japanese, Latin, math, Russian, science or social studies. Department enforced prerequisites: completed all education and content-specific arts and sciences courses and passed required licensure exam.
Requisites: Requires corequisite course of EDUC 4513. Restricted to EDUC majors only.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Teacher Education

EDUC 4716 (3) Basic Statistical Methods
Introduces descriptive statistics including graphic presentation of data, measures of central tendency and variability, correlation and prediction, and basic inferential statistics, including the t-test.
Requisites: Restricted to EDEL-LICU majors only.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Education

EDUC 4722 (5) Student Teaching: Secondary School 2
Student teacher apprentices in a middle/junior high or senior high school. Department enforced prerequisites: completed all education and content-specific arts and sciences courses and passed required licensure exam.
Requisites: Requires corequisite course of EDUC 4513. Restricted to EDUC majors only.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Teacher Education

EDUC 4732 (4-12) Student Teaching K-12
Required experience for music students seeking education at both elementary and secondary levels. Department enforced prerequisites: completed all education and content-specific music courses and passed required licensure exam.
Requisites: Requires corequisite course of MUSC 4193. Restricted to EDMU (LICU or LICG) majors only.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Teacher Education

EDUC 4742 (9) Student Teaching: Secondary for Engineers
Student teacher apprentices in a middle/junior or senior high school. Must be admitted to a secondary teacher education program in English, Japanese, Latin, math, Russian, science or social studies. Department enforced prerequisites: completed all education and content-specific arts and sciences courses and passed required licensure exam.
Requisites: Requires a prerequisite course of EDUC 4513 or EDUC 4050 (minimum grade C). Restricted to EDMA or EDSC majors only.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: Secondary Education

EDUC 4800 (1-9) Special Topics
Designed to meet needs of students with topics of pertinent interest. Repeatable: Repeatable for up to 18.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: General Education

EDUC 4810 (1-9) Special Topics
Repeatable: Repeatable for up to 18.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: General Education
EDUC 4811 (3) Teaching and Learning Biology
Provides an introduction to recent research into student learning on the conceptual foundations of modern biology, together with pedagogical methods associated with effective instruction and its evaluation. Students will be involved in active research into conceptual and practical issues involved in biology education, methods to discover student conceptions, and the design, testing and evaluation of various instructional interventions.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 6811 and MCDB 4811 and MCDB 5811
Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences

EDUC 4815 (3) Teaching K-12 Mathematics: Number Sense
Provides teachers opportunity to explore fundamental mathematical theories and pedagogical perspectives pertaining to the teaching and learning of number and operation. Engages students in explorations of mathematical content underlying number and operations, while highlighting relevant problem solving, reasoning and proof, and mathematical connections. Explores implications of teachers' mathematical learning on their classroom teaching. Develops practices supporting learner's number sense development.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5815

EDUC 4821 (3) Teaching K-12 Mathematics: Algebraic Thinking
Uses reform-based mathematics curricula to engage participants in algebraic thinking, to reflect on their own knowledge of algebraic concepts, and to examine pedagogical ideas that can foster K-12 students' algebraic thinking and learning. Algebraic topics include patterning, variable, functions, multiple representations, equality, and solving linear and systems of equations.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5820

EDUC 4822 (3) Teaching and Learning Chemistry
Explores issues related to how people learn and teach chemistry. Reviews high school and early college chemistry concepts both from the content and pedagogical perspectives. Delves into the chemistry education research, education, psychology, and cognitive science literature. Provides an opportunity to observe and/or teach K-12 or college chemistry classes.
Requisites: Requires prerequisite course of CHEM 1113 or CHEM 2100 or CHEM 1371 (minimum grade C-).
Additional Information: Departmental Category: General Education

EDUC 4831 (3) Advanced Peer Education
Second semester of an academic year's training for students interested in peer counseling. Expand upon what you learned in ARSC 2274. Focus on presentations, leadership, and group facilitation. Basic group leadership, facilitation theory, and technique taught. Co-create and co-lead your own small groups/presentations for other CU students. Offered only spring semesters.
Requisites: Requires prerequisite course of ARSC 2274 (minimum grade D-).
Additional Information: Departmental Category: General Education

EDUC 4833 (3) Teaching and Learning Earth Systems
Learn and develop pedagogically effective strategies for teaching and understanding Earth Science concepts. Particular emphasis is placed on understanding the importance of geoscience habits of mind (i.e. spatial/temporal reasoning, multiple working hypotheses, geographic context). Focuses upon inquiry and evaluation of evidence, the importance of background knowledge and misconceptions, and developing effective discourse within and outside the classroom.
Requisites: Requires prerequisite course of ATOC 1060 or ENVS 1000 or GEOL 1010 or GEOL 1020 or GEOL 1060 (minimum grade C-).
Grading Basis: Letter Grade
Additional Information: Departmental Category: General Teacher Education

EDUC 4840 (1-4) Independent Study
Repeatability: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: General Education

EDUC 4850 (3) Teaching K-12 Mathematics: Probability & Statistics
Focuses on teaching probability, data analysis, and statistics in K-12 classrooms. Explores curriculum and assessment strategies in the areas of probability and statistics. Examines research on students' thinking on stochastic tasks and how this research informs teaching practice. Emphasizes deepening of one's conceptual understanding of probability and statistics and their importance in the current information age.

EDUC 4901 (3) Student Teaching I
Provides opportunities for practice around classroom community building, instruction, assessment, etc. in partnership with a mentor teacher and public school students. Experiences will vary depending upon the context, grade level, and school/course placement.
Requisites: Requires prerequisite of EDUC 4001 or EDUC 5001 (both minimum grade C-). Requires corequisite of EDUC 4330 or EDUC 5330. Restricted to teacher licensure students in English (EDEN-LICU) or Social Studies (EDSS-LICU).
Grading Basis: Letter Grade

EDUC 4902 (4) Student Teaching II
Provides opportunities for practice around classroom community building, instruction, assessment, etc. in partnership with a mentor teacher and public school students. Although experiences will vary depending upon the context, grade level, and school/course placement, in this practicum students will build upon their work in Student Teaching I and take greater responsibility for teaching.
Requisites: Requires prerequisite of EDUC 4901 (minimum grade C-) and corequisite of EDUC 5355 or 5365. Restricted to students with an English-Secondary Education Licensure plan (EDEN-LICU) or Social Studies-Secondary Education Licensure plan (EDSS-LICU).
Grading Basis: Letter Grade

EDUC 4910 (3) Peer Counseling Practicum
Controlled enrollment. Credit given for peer counseling activities. Students are selected to participate in this class and act as peer counselors or TAs for the peer counseling training. Repeatable up to 9 total credit hours.
Repeatability: Repeatable for up to 9.00 total credit hours.
Additional Information: Departmental Category: General Education
EDUC 4912 (1) Practicum in Teacher Education
Provides in-school practicum experience.
Repeatability: Repealable for up to 3.00 total credit hours. Allows multiple enrollment in term.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Teacher Education

EDUC 5001 (3) Framing Equity and Justice in the Humanities Classroom
Critically frames learning to teach for equity and justice within schools as systems. Orient students to the School of Education’s mission and guiding principles of the Secondary Humanities program. Provides opportunities for students to enact those principles with mentor teachers in local classrooms. Meets weekly on CU campus and involves a minimum of 50 hours in local schools.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4001
Requisites: Restricted to Masters-level teacher licensure students with a English-Secondary Education (EDEN-LICG) or Social Studies-Secondary Educ (EDSS-LICG) plan.
Grading Basis: Letter Grade

EDUC 5005 (3) Advanced Social Foundations of Education
Critically examines the intellectual and political forces that shape the aims, policies, and practices of K-12 education in the United States.
Requisites: Restricted to Educ-Curriculum Instruction (EDCI) graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5010 (1) Race and Equity in Higher Education
Introduces students to the research and theory surrounding access to college and equity in higher education institutions. It specifically addresses access and equity issues related to race and ethnicity. Also discusses equity for faculty and administrators. Major themes include: college access, college choice, affirmative action and diversity.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5011 (1) College Student Career Development
Explores the diverse aspects of career development for college students. Examines the different models of career services for students in different schools, colleges and majors.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5012 (1) Higher Education Finance
Covers the major, basic elements of budgeting and finance in higher education. It is designed to address the budget process in colleges and universities, as well as the impact of budget activities on other areas of planning and operations within an institution. Enhances students’ knowledge of both internal and external financial environments facing higher education.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5014 (1) Ethical Dilemmas in Higher Education
Examines ethical issues involved in higher education and student affairs administration. Uses real and fictional ethical cases to bring to light various moral and ethical tensions relevant for higher education and student affairs professionals.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5015 (3) International / Comparative Education
Comparatively studies education in other countries, emphasizing its role in developing nations, with an emphasis on successful models in basic literacy, primary education, secondary curriculum and teacher education. Analyzes political, social and economic policies and ideologies for their relevance to the development process, including the role of international organizations: World Bank, UNICEF, UNESCO, Peace Corps and Volunteer Agencies.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4015
Additional Information: Departmental Category: Graduate Education

EDUC 5020 (1) College Academic Advising
Explores the diverse aspects of academic advising for college students. Examines the different models of advising for students in different schools, colleges and majors.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5021 (1) College Athletic Affairs
Examines the relationship between student-athletes and the institution and explores how intercollegiate athletics fits into the academic enterprise of higher education. Key questions include: 1) what purpose does athletics serve and 2) for whose benefit? With these questions in mind, we examine the range of issues at the intersection of athletic administration, student development theory, and educational leadership and policy.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5022 (1) LGBTQ+ Topics in Higher Education
Explores the diverse aspects of college and university life for students, staff, and faculty who identify as LGBTQ+. Examines the different higher education supports and challenges for LGBTQ+ student populations.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5023 (1) College Admissions and Enrollment
Explores the diverse aspects of college and university student recruitment, outreach, admissions, and enrollment. Examines the different models of admissions processes and systems, with attention to relevant politics and professional practices.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5026 (1) Technology in Higher Education
Examines impact of technology on higher education and student affairs. Explores impact of technology on students and their development, and teaching and learning. Although technical aspects of technology are discussed in some depth, this is not designed as a ‘technical’ course; the content revolves around implications of technology as both a driving and a supportive element within higher education.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5027 (1) Institutional Advancement and Development in Higher Education
Examines the roles of institutional advancement, development, and fundraising in higher education and student affairs. Explores the impact of advancement on students, staff, and faculty, as well as on teaching and learning, research, campus life, and the larger community. The content will revolve around implications of development work as both a driving and a supportive element within higher education.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 5028 (1) International Education in Higher Education and Student Affairs
To provide an introduction to the field of international education. Students pursuing graduate studies in higher education administration will benefit from an overview of global student mobility trends and an exploration of career pathways within the field. In-class discussions, out-of-class readings, and guest speakers will guide student learning.
Requisites: Restricted to graduate students only.
Grading Basis: Letter Grade

EDUC 5030 (1) Accessibility and Students with Disabilities in Higher Education
Provides students with important knowledge about issues of accessibility and development for students with disabilities in higher education. Examines strategies to offer support and guidance to students with disabilities in order to foster a safe and engaging learning and living environment.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5031 (1) Institutional Research & Analytics in Higher Education
Examines the roles and uses of institutional research and data analytics in higher education and student affairs. Provides students with a foundational understanding of the field of institutional research and data analytics in higher education. Explores the activities in which institutional researchers engage, the tools they need to be successful in their jobs, the topics they study and issues they investigate.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5032 (1) College Student Leadership Development
Surveys the study and practice of leadership and provides students with a variety of experiences to wrestle with large leadership questions. What is leadership? Who can be a leader? How is leadership an important aspect of understanding self and others?
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5035 (3) Proseminar: Parent and Community Involvement
Focuses on models and strategies for improving parent and community involvement in the schools. Discusses administrative concerns, such as parent advisory councils, and instructional concerns, such as helping children with school assignments.
Additional Information: Departmental Category: Graduate Education

EDUC 5060 (3) Classroom Interactions
Students design and implement instructional activities informed by what it means to know and learn mathematics and science, and then evaluate the outcomes of those activities on the basis of classroom artifacts. Students examine how content and pedagogy combine to make effective teaching. Students are required to work in a classroom 4 hours per week.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4060
Requisites: Restricted to Educ-Curriculum Instruction (EDCI) graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5065 (3) Curriculum Theories
Examines four central curricular traditions: progressive; conservative; radical; and spiritual. Highlights the strengths and weaknesses of various writers within each tradition with attention paid to the conceptual features and the practical implications of each educational view. Encourages students to examine their own educational assumptions.
Additional Information: Departmental Category: Graduate Education

EDUC 5070 (3) Spirituality and Religion in Education
Examines features of religion, spirituality, and a liberal arts education, so as to further understand the constitutional, historical and cultural constraints on, and acceptable approaches to the study of religion and spirituality in American education. Specifically explores aspects of a contemplative orientation and the degree to which such an orientation should/can be pursued in K-12 public and higher education.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5075 (3) Sociology in Education
In-depth analysis of theories and concepts in sociology and education. Evolution of curriculum, organization, and enrollment characteristics of American schools. Schooling, race, class, culture, gender, stratification, and educational reform in light of paradigmatic change in theories and concepts of sociology.
Additional Information: Departmental Category: Graduate Education

EDUC 5085 (3) History of American Education
Examines features of religion, spirituality, and a liberal arts education, so as to further understand the constitutional, historical and cultural constraints on, and acceptable approaches to the study of religion and spirituality in American education. Specifically explores aspects of a contemplative orientation and the degree to which such an orientation should/can be pursued in K-12 public and higher education.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5085 (3) History of American Education
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students’ everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4112 and PSYC 4114

EDUC 5112 (3) Adolescent Development and Learning for Teachers
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students’ everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.

EDUC 5112 (3) Adolescent Development and Learning for Teachers
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students’ everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.

EDUC 5115 (3) Issues in School Change and Reform
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students’ everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.

EDUC 5115 (3) Issues in School Change and Reform
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students’ everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.

EDUC 5135 (3) Story and Memoir
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students’ everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.

EDUC 5135 (3) Story and Memoir
Examines current theory and research about adolescent learning and development and explore implications for secondary teaching. Topics include human diversity as a resource for learning, adversity and agency, connecting instruction to students’ everyday lives, and the role of belonging and relationships in positive youth development. This course is appropriate for masters degree students.
EDUC 5145 (3) Gender, Literacy, and the K-12 Classroom
Explores and critiques various conceptions of gender within popular and scholarly publications that have influenced how gender and sexual diversity is approached in classrooms. Builds a theoretical stance toward gender and sexual diversity that supports equity, engagement, and achievement for all children and youth. Discusses teaching strategies that thoughtfully take into account gender identities and equity.
Additional Information: Departmental Category: Graduate Education

EDUC 5150 (3) Introduction to Qualitative Research Methods
Introduces students to qualitative research in education. Examines the foundations, design, methods and analysis of qualitative research methods. Readings include texts about the foundations and purposes of qualitative inquiry, and methodological readings about the application of research techniques. Students will complete a variety of small, hands-on projects that introduce major dimensions of qualitative research including observation, interviewing, and document analysis.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4150
Grading Basis: Letter Grade

EDUC 5165 (3) Children's Literature
Involves reading and evaluation of picture books, and emphasizes children's interests, authors and illustrators, multicultural literature, the components of narrative, and the features of illustrations. Examines connections between children's literature and children's development as writers.
Additional Information: Departmental Category: Graduate Education

EDUC 5205 (3) Elementary Mathematics Theory and Methods
Provides pre-service teachers opportunities to explore contemporary theories of learning, curriculum development, and pedagogical strategies pertaining to teaching elementary-level mathematics. Blends exploration in mathematical content with development of sophisticated mathematical models for teaching.
Requisites: Requires corequisite course of EDUC 4351. Restricted to Elementary Education (EDEL) majors only.
Additional Information: Departmental Category: Elementary Education

EDUC 5215 (3) Elementary Science Theory and Methods
Provides pre-service elementary teachers opportunities to explore contemporary theories of learning, curriculum development, pedagogical strategies, and assessment. Blends scientific content, pedagogy, and practical applications.
Requisites: Requires corequisite courses of EDUC 4331 and 4341. Restricted to Elementary Education (EDEL) majors only.
Additional Information: Departmental Category: Elementary Education

EDUC 5222 (3) Language Study for Educators
Focuses on the nature of linguistic development and performance. Examines works that reflect a range of scholarly approaches to language study, explores language use both in and out of school, takes up the relationships between language practices and power and considers implications for classroom teaching.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4222
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5235 (3) Language and Literacy Across the Curriculum
Explores the relationship between language and learning in math and science classrooms with the goal of developing teaching practices that engage students in using language as a tool for understanding and constructing meaning across the curriculum. Explores how language/literacy take on different forms and functions in different social contexts and academic disciplines.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4232
Requisites: Restricted to EDCI, EECD, EFPP, EPSY or REME graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5245 (3) Foundations of Reading Instruction K-12
Comparatively analyzes current and emerging philosophies and programs in K-12 with focus on teaching reading and thinking skills.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5255 (3) Digital Literacies and New Media
Engage in digital reading and writing experiences using tools for communication, collaboration, design and research. Students will discuss and critically reflect on the role of technology in literacy instruction, grounded on learning and literacy theories. Connections to English language arts include genre study of literary and nonfiction texts and using quality children's literature as mentor texts for multimodal craft.
Requisites: Requires a prerequisite course of EDUC 5245 (minimum grade C).
Grading Basis: Letter Grade

EDUC 5265 (3) Processes in Writing
Examines processes writers use from early ages to maturity by investigating current research related to writing curriculum, instruction, and policy. Includes opportunities for students to engage in inquiry related to writing curriculum and instruction in K-12 classrooms.
Requisites: Restricted to Educ-Curriculum Instruction (EDCI) graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5275 (3) Assessment in Literacy
Assumes an interactive model of reading and supports the perspective of assessment as interrelated with curriculum and instruction; examines principles that guide the selection and interpretation of assessment strategies and tools, with a focus on students who are experiencing difficulties with literacy.
Requisites: Requires a prerequisite course of EDUC 5245 (minimum grade C). Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5285 (3) Reading Clinic Procedures K-12
Focuses learning on a select group of K-12 students to assess reading proficiency, develop appropriate instructional goals, and provide instruction that addresses these goals. Emphasis on interpreting assessment data, extending a repertoire of instructional strategies, and developing and implementing a strong instructional plan.
Requisites: Requires a prerequisite course of EDUC 5275 (minimum grade C).
Additional Information: Departmental Category: Graduate Education
EDUC 5295 (3) Narrative and Story in the Humanities
Explores a wide variety of texts that might be used in secondary English and Social Studies classrooms. Examines philosophies and instructional approaches to the teaching of reading and literature. Considers the influence of story and storytelling in the construction of personal and societal meaning.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4295
Requisites: Requires prerequisite of EDUC 4001 or EDUC 5001 (minimum grade C-). Restricted to teacher licensure students in English (EDEN-LICG) or Social Studies (EDSS-LICG).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 5317 (3) Perspectives on Mathematics
Explores the historical development of mathematics as a human construct, and the relationship between the discipline and the contemporary school mathematics curriculum. Focuses on the sociology of mathematics education and how cultural traditions and societal needs influence the school mathematics curriculum and educational practice.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4317
Additional Information: Departmental Category: Graduate Education
EDUC 5318 (3) The Nature of "English Language Arts"
Considers historical and ongoing controversies concerning the nature of "English" as an academic field of study and of "English Language arts" as a school subject. Integrates understandings of subject-matter specialization, of approaches to teaching this contested subject, and of the diverse learners that teachers seek to prepare for the 21st century literacies.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4318
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education
EDUC 5325 (3) Queering Literacy in Secondary Classrooms
Engages theories and practices of literacy teaching and learning that challenge multiple forms of oppression. Using the tools of queer pedagogy, students will learn, develop, and enact strategies for planning and implementing literacy instruction that moves beyond inclusion of differences in the English/language arts and social studies curriculum.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4325
Requisites: Restricted to Master’s teacher licensure students in English (EDEN-LICG).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 5330 (3) Secondary Social Studies Methods I
Explores effective social studies teaching techniques used to prepare secondary students for success in college, career, and civic life. An emphasis is placed on interpreting sources, understanding multiple perspectives, and employing critical thinking with diverse students.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4330
Requisites: Requires prerequisite of EDUC 4001 or EDUC 5001 (both minimum grade C-). Requires corequisite of EDUC 4901. Restricted to teacher licensure students in Social Studies (EDSS-LICG).
Grading Basis: Letter Grade
EDUC 5335 (3) Secondary Social Studies Methods II
Explores effective techniques associated with reading, processing and assessing social studies subject area content with an emphasis on developing critical thinking skills and meeting the needs of diverse students.
Requisites: Requires prerequisite course of EDUC 4330 or EDUC 5330 and EDUC 4901 (all minimum grade C-). Requires corequisite of EDUC 4902. Restricted to teacher licensure students in Social Studies (EDSS-LICG).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 5345 (3) Secondary English Methods I
Explores the underlying principles and philosophies of several approaches to the teaching of English in the areas of language, writing, and speaking and the practical application of these methods in the secondary classroom. Provides support in constructing activities, assignments, assessments, and units that meet the differentiated needs of students given their diverse identities, lives, interests, and needs.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4345
Requisites: Requires a prerequisite of EDUC 4001 or EDUC 5001 (both minimum grade C-). Requires corequisite of EDUC 4901. Restricted to teacher licensure students in English (EDEN-LICG).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 5355 (3) Secondary Social Studies Methods II
Explores effective techniques associated with reading, processing and assessing social studies subject area content with an emphasis on developing critical thinking skills and meeting the needs of diverse students.
Requisites: Requires prerequisite course of EDUC 4330 or EDUC 5330 and EDUC 4901 (all minimum grade C-). Requires corequisite of EDUC 4902. Restricted to teacher licensure students in Social Studies (EDSS-LICG).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 4310 (3) Queer(ing) Topics in Education
Bring critical and queer theoretical perspectives to bear on an inquiry into what's counted as "normal" in social, historical, and political contexts of education in the United States. We'll explore queerness, queer theory, and queer pedagogy, in an effort to examine schooling as a heteronormative institution that has tended toward (re)producing heterosexism, homophobia, and violence against queer bodies and identities.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4310
Requisites: Required to graduate students only.
EDUC 5315 (3) Perspectives on Science
Explores contemporary ideas and issues in the history, philosophy and sociology of science education and science, science as a social and cultural activity and how contemporary issues in science relate to and impact educational practice.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4315
Additional Information: Departmental Category: Graduate Education
EDUC 5316 (3) Nature of Social Studies and Social Studies Education
Prepares teacher education candidates for teaching social studies in a social context. Participants will understand theoretical and developmental processes associated with social studies learning, methods for teaching social studies in a diverse society, and the integration of classroom instruction with the Colorado Academic Content Standards that foster such processes.
Requisites: Restricted to Educ-Curriculum Instruction (EDCI), Social Studies-Secondary Educ. (EDSS), Anthropology (ANTH), Economics (ECON), Geography (GEOG), History (HIST) or International Affairs (IAFS) majors only.
Additional Information: Departmental Category: Graduate Education
EDUC 5318 (3) The Nature of "English Language Arts"
Considers historical and ongoing controversies concerning the nature of "English" as an academic field of study and of "English Language arts" as a school subject. Integrates understandings of subject-matter specialization, of approaches to teaching this contested subject, and of the diverse learners that teachers seek to prepare for the 21st century literacies.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4318
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education
EDUC 5325 (3) Queering Literacy in Secondary Classrooms
Engages theories and practices of literacy teaching and learning that challenge multiple forms of oppression. Using the tools of queer pedagogy, students will learn, develop, and enact strategies for planning and implementing literacy instruction that moves beyond inclusion of differences in the English/language arts and social studies curriculum.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4325
Requisites: Restricted to Master’s teacher licensure students in English (EDEN-LICG).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 5330 (3) Secondary Social Studies Methods I
Explores effective social studies teaching techniques used to prepare secondary students for success in college, career, and civic life. An emphasis is placed on interpreting sources, understanding multiple perspectives, and employing critical thinking with diverse students.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4330
Requisites: Requires prerequisite of EDUC 4001 or EDUC 5001 (both minimum grade C-). Requires corequisite of EDUC 4901. Restricted to teacher licensure students in Social Studies (EDSS-LICG).
Grading Basis: Letter Grade
EDUC 5345 (3) Secondary English Methods I
Explores the underlying principles and philosophies of several approaches to the teaching of English in the areas of language, writing, and speaking and the practical application of these methods in the secondary classroom. Provides support in constructing activities, assignments, assessments, and units that meet the differentiated needs of students given their diverse identities, lives, interests, and needs.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4345
Requisites: Requires a prerequisite of EDUC 4001 or EDUC 5001 (both minimum grade C-). Requires corequisite of EDUC 4901. Restricted to teacher licensure students in English (EDEN-LICG).
Grading Basis: Letter Grade
EDUC 5355 (3) Secondary Social Studies Methods II
Explores effective techniques associated with reading, processing and assessing social studies subject area content with an emphasis on developing critical thinking skills and meeting the needs of diverse students.
Requisites: Requires prerequisite course of EDUC 4330 or EDUC 5330 and EDUC 4901 (all minimum grade C-). Requires corequisite of EDUC 4902. Restricted to teacher licensure students in Social Studies (EDSS-LICG).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education
EDUC 5365 (3) Secondary English Methods II
Explores the underlying principles and philosophies of several approaches to the teaching of English in the areas of reading, thinking, and viewing and the practical application of these methods in the secondary classroom. Provides support in constructing activities, assignments, assessments, and units that meet the differentiated needs of students given their diverse identities, lives, interests, and needs.
**Requisites:** Requires prerequisite course of EDUC 4342 or EDUC 5345 and EDUC 4901 (all minimum grade C-). Requires corequisite of EDUC 4902. Restricted to teach licensure students in English (EDEN-LICG).
**Grading Basis:** Letter Grade
**Additional Information:** Departmental Category: Graduate Education

EDUC 5375 (3-4) Problem-Based Math Instruction
Focuses on curriculum, materials, methods and assessment, and related aspects of instruction. Introduces best practices in teaching mathematics in middle and high schools. Students are required to work in a classroom 4 hours per week. Examines the Colorado Academic Content Standards.

**Equivalent - Duplicate Degree Credit Not Granted:** EDUC 4375

**Requisites:** Restricted to EDCI, EDSC, or EDMA majors only.

**Recommended:** Corequisite EDUC 4023.

**Additional Information:** Departmental Category: Graduate Education

EDUC 5385 (3-4) Problem-Based Science Instruction
Focuses on curriculum, materials, methods, assessment, and related aspects of instruction. Introduces best practices in teaching science in middle and high schools. Students are required to work in a classroom 4 hours per week. Examines the Colorado Academic Content Standards.

**Requisites:** Restricted to EDCI, EDSC, or EDMA majors only.

**Recommended:** Corequisite EDUC 4023.

**Additional Information:** Departmental Category: Graduate Education

EDUC 5390 (3) Professional Teaching for Equity and Justice
Explores what it means to be a professional educator for equity and justice. Examines how such educators might best work to sustain their commitments through advocacy and care and how they might extend their role through involvement in the professional community and conversation at local, state, and national levels.

**Requisites:** Requires prerequisite of EDUC 5365 or EDUC 5355 (both minimum grade C-). Restricted to teacher licensure students in English (EDEN-LICG) of Social Studies (EDSS-LICG).

**Grading Basis:** Letter Grade

**Additional Information:** Departmental Category: Graduate Education

EDUC 5425 (3) Foundations of Bilingual/ Multicultural Education
Provides a comprehensive survey of bilingual-multicultural education programs for emergent bilingual students. Includes an overview of the history and legislation related to the education of emergent bilingual students, as well as the various models, theoretical and philosophical underpinnings, and pedagogical practices that constitute sound educational practices for emergent bilingual students.

**Equivalent - Duplicate Degree Credit Not Granted:** EDUC 4425

**Requisites:** Restricted to graduate students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 5435 (3) Materials and Methods in Bilingual/ Multicultural Education
Provides an in-depth study of the curriculum options available for bilingual and ESL programs. Presents, reviews, and critiques specific methods and strategies for teaching language to minority students. Gives the opportunity to develop and present teaching units in Spanish or in ESL methodology, as appropriate.

**Requisites:** Requires a prerequisite course of EDUC 5425 (minimum grade C).

**Additional Information:** Departmental Category: Graduate Education

EDUC 5445 (3) Curriculum for Multicultural Education
Analyzes curriculum programs and examines principles that inform innovation for education of diverse students at all school levels. Includes topics of ethnic, racial, socio-economic, linguistic, and gender diversity.

**Additional Information:** Departmental Category: Graduate Education

EDUC 5455 (3) Literacy for Linguistically Different Learners
Presents current and emerging philosophies and methods on teaching reading to culturally diverse second-language learners. Includes review of materials, strategies for teaching reading and writing skills, and important considerations for transference from L1 to L2 reading.

**Requisites:** Requires a prerequisite course of EDUC 5425 (minimum grade C).

**Additional Information:** Departmental Category: Graduate Education

EDUC 5460 (3) Teaching and Learning Physics
Learn how people understand key concepts in physics. Through examination of physics content, pedagogy and problems, through teaching, and through research in physics education, students will explore the meaning and means of teaching physics. Students will gain a deeper understanding of how education research is done and how people learn. Useful for all students, especially for those interested in physics, teaching, and education research.

**Equivalent - Duplicate Degree Credit Not Granted:** EDUC 4460 and PHYS 4460 and PHYS 5460

**Requisites:** Restricted to graduate students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 5465 (3) Introduction to ESL/Bilingual and Special Education
Provides students with the fundamental information of ESL, bilingual and special education, including theories, assumptions, philosophies, and paradigms of bilingual and special education. Discusses successful teaching techniques and instructional approaches, including individualization, least restrictive environment, transition, and career education.

**Additional Information:** Departmental Category: Graduate Education

EDUC 5485 (3) Differentiation in the Classroom
Focuses on teaching culturally and linguistically diverse students, special education students, and differentiation in the classroom. Emphasizes evidence-based teaching practices, programmatic interventions that support student learning and using research to inform practice. Includes practicum. Department enforced prerequisite: restricted to MA+ students.

**Additional Information:** Departmental Category: Graduate Education

EDUC 5490 (3) Blurring Disciplinary Lines in the Humanities
Explores theories, methods, and materials for building interdisciplinary connections within and across secondary English and Social Studies classrooms. Provides opportunities for collaborative work in building lessons and unit plans that challenge disciplinary boundaries and advocate for complex problem solving.

**Equivalent - Duplicate Degree Credit Not Granted:** EDUC 4490

**Requisites:** Requires prerequisite of EDUC 4342 or EDUC 5342 or EDUC 4330 or EDUC 5330 (all minimum grade C-). Restricted to teacher licensure students in English (EDEN-LICU or EDEN-LICG) or Social Studies (EDSS-LICU or EDSS-LICG).

**Grading Basis:** Letter Grade
EDUC 5505 (3) Education of Students with Learning and Behavior Disorders
Discusses unique learning needs of students with learning and behavior disorders. Emphasizes development of a systems model for diagnosis, programming, and remediation. Stresses data-based individualization of instruction, with emphasis on intervention in inclusive learning environments and developing a culturally responsive system.
Additional Information: Departmental Category: Graduate Education

EDUC 5515 (3) Curriculum and Assessment for Special Learners
Emphasizes assessment of special education students from pre-referral through staffing and placement, including response to intervention, research-based assessment practices, analytic teaching and assessment, curriculum-based assessment and measurement. Selection, administration, and interpretation of formal and informal assessment devices are studied, with particular emphasis on cultural relevance and equity in assessment for special learners with mild to severe needs.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5525 (3) Research Issues in Special Education
Provides practical experience in the review, critique, conceptualization, and writing of research studies in special education. Also offers experience in design of evaluation systems for classroom practice.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5535 (3) Diagnostic Testing in ESL and Bilingual Education
Promotes critical uses of assessment instruments and information. Provides methods for educators to incorporate assessment as a meaningful activity in the classroom intended to support learning among bilingual students. Examines effectiveness, validity, and fairness in the testing of linguistically diverse populations. Provides first-hand experiences developing, selecting, reviewing, and adapting test materials as critical to making informed teaching decisions.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5545 (3) Strategies for Teaching Students with Special Needs
Provides teachers with specific evidence-based methods and techniques for teaching students with a wide variety of high and low disabilities including learning and language disabilities, hearing and visual impairments, physical disabilities, and health impairments. Emphasizes different teaching methods, instructional materials, and learning strategies that have proven effective working students with cognitive learning needs.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5555 (3-4) Practicum in Bilingual/Special Education
Offers supervised field experience in elementary and secondary special education class settings. Each credit hour requires 50 contact hours.
Requisites: Requires prerequisite courses of EDUC 5465 and EDUC 5505 and EDUC 5515 or EDUC 5545 (all minimum grade C-). Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5575 (1-4) Workshop in Curriculum and Instruction
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 5580 (3) Physics and Everyday Thinking
Engages non-physics majors in hands-on, minds-on activities and labs to investigate the physical world, the nature of science, and how science knowledge is constructed. This introductory course is especially relevant for future elementary and middle school teachers although it will meet the needs of most non-physics and non-science majors. Physics content focuses on interactions and energy.
Additional Information: Departmental Category: Graduate Education

EDUC 5595 (1-4) Practicum in Linguistically Different: English as a Second Language
University supervised, school-based field experience teaching linguistically different students, as well as assistance in the completion of EECD portfolio.
Requisites: Requires prerequisite courses of EDUC 5425 and EDUC 5435 and EDUC 5535 (all minimum grade C-). Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5605 (3) Research Issues in Bilingual Education
Offers practical experience in the review, critique, conceptualization, and writing of research studies in bilingual/ESL education. Provides experience in the design of classroom evaluation systems.
Requisites: Requires a prerequisite course of EDUC 5245 (minimum grade C-). Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5610 (1-3) Math and Science Education
Introduces learning theory and teaching practices for mathematics and science learning assistants. Presents theoretical issues such as conceptual development, questioning techniques, cooperative learning, nature of math/science, and argumentation in mathematics and science.
Additional Information: Departmental Category: Graduate Education

EDUC 5615 (3) Second Language Acquisition
Presents a broad survey of second-language acquisition research. Stresses theoretical concerns and research findings and practical applications to teaching second languages. Gives special emphasis to second-language acquisition.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5625 (3) Methods of Teaching English as a Second Language
Exposes students to strategies used to teach English as a second or foreign language. Covers both theoretical and applied aspects of language learning and teaching. Exposes students to techniques, activities, strategies and resources to plan instruction for students learning English as a second language. Emphasizes oral language development, literacy and content-area instruction for teaching K-12 students.
Recommended: Prerequisite EDUC 5615.
Additional Information: Departmental Category: Graduate Education

EDUC 5635 (3) Education and Sociolinguistics
Explores the discipline of sociolinguistics, the study of language variation and use, and its application within education settings. Not designed as an advanced sociology or linguistics course. Areas of study include language variation, speech communities, the ethnography of communication, speech and social identities, and sociolinguistic research related to teaching and learning.
Additional Information: Departmental Category: Graduate Education
EDUC 5706 (3) Assessment in Mathematics and Science Education
Examines purposes and practices of assessment in mathematics and science education. Particular attention is given to application of theoretical foundations and contemporary research in the design and use of assessment techniques and tools to support teaching for student understanding. Addresses the role of effective formative assessment in teaching and learning.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4706
Additional Information: Departmental Category: Graduate Education

EDUC 5716 (3) Basic Statistical Methods
Introduces descriptive statistics including graphic presentation of data, measures of central tendency and variability, correlation and prediction, and basic inferential statistics, including the t-test.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5726 (3) Introduction to Disciplined Inquiry
Considers various research approaches and methodologies included in education including experimental and quasi-experimental methods; anthropological and case study methods; evaluative research and field studies; correlational; and sociological, historical, and philosophical research. Topics include library research, research criticism, research design, and proposal writing.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 5800 (1-9) Master's Special Topics
Designed to meet needs of students with topics of pertinent interest. 00 total credit hours. Allows multiple enrollment in term.
Repeatable: Repeatable for up to 18.00 total credit hours. Allows multiple enrollment in term.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5815 (3) Teaching K-12 Mathematics: Number Sense
Provides teachers opportunity to explore fundamental mathematical theories and pedagogical perspectives pertaining to the teaching and learning of number and operation. Engages students in explorations of mathematical content underlying number and operations, while highlighting relevant problem solving, reasoning and proof, and mathematical connections. Explores implications of teachers’ mathematical learning on their classroom teaching. Develops practices supporting learner’s number sense development. Formerly EDUC 5810.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4815
Additional Information: Departmental Category: Graduate Education

EDUC 5820 (3) Teaching K-12 Mathematics: Algebraic Thinking
Uses reform-based mathematics curricula to engage participants in algebraic thinking, to reflect on their own knowledge of algebraic concepts, and to examine pedagogical ideas that can foster K-12 students’ algebraic thinking and learning. Algebraic topics include patterning, variable, functions, multiple representations, equality, and solving linear and systems of equations.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4821
Additional Information: Departmental Category: Graduate Education

EDUC 5822 (3) Teaching and Learning Chemistry
Explores issues related to how people learn and teach chemistry. Reviews high school and early college chemistry concepts both from the content and pedagogical perspectives. Delves into the chemistry education research, education, psychology and cognitive science literature. Provides an opportunity to observe and/or teach K-12 or college chemistry classes.
Requisites: Requires prerequisite course of CHEM 1133 or CHEM 2100 or CHEM 1371 (minimum grade C).
Additional Information: Departmental Category: Graduate Education

EDUC 5831 (3) Teaching K-12 Mathematics: Geometry & Measurement
Provides an opportunity to explore how to foster geometric thinking while examining fundamental mathematical theory underlying the content area of geometry and measurement. Emphasizes investigative approach involving problem solving, reasoning, connections, and communication as well as learning mathematics content in a flexible and conceptual way. Challenges participants to apply their understanding to teaching practices that foster geometric thinking in K-12 learners. Formerly EDUC 5830.
Additional Information: Departmental Category: Graduate Education

EDUC 5833 (3) Teaching and Learning Earth Systems
Learn and develop pedagogically effective strategies for teaching and understanding Earth Science concepts. Particular emphasis is placed on understanding the importance of geoscience habits of mind (i.e. spatial/temporal reasoning, multiple working hypotheses, geographic context). The course focuses upon inquiry and evaluation of evidence, the importance of background knowledge and misconceptions and developing effective discourse within and outside the classroom.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 5840 (3) Teaching K-12 Mathematics: Probability & Statistics
Focuses on teaching probability, data analysis, and statistics in K-12 classrooms. Explores curriculum and assessment strategies in the areas of probability and statistics. Examines research on students’ thinking on stochastic tasks and how this research informs teaching practice. Emphasizes deepening of one’s conceptual understanding of probability and statistics and their importance in the current information age.
Additional Information: Departmental Category: Graduate Education

EDUC 6110 (3) Student Affairs in Higher Education
Provides students with a thorough introduction to the field of student affairs administration in higher education. Explores diverse facets of college student affairs administration and its role within US higher education. The course will help students develop a broad foundation for subsequent Higher Education study and practice. Focuses on philosophies, complexities, and futures of the student affairs profession.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 6210 (3) Education Policy and the Law
Approaches education policy issues through the rich history of litigation and current legal challenges facing American K-12 schooling. Builds an understanding of the legal and policy development of the American schooling system, particularly in the 20th century. Laws and legal cases will be used as jumping-off points for broader discussions.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education
EDUC 6220 (3) Gender Issues in Education
Provides a strong foundation in the various issues of gender and sexual diversity in education. Stimulates explorations into the ways the construct of "gender" affects and is affected by the educational system and process. Presents theory and research about contemporary educational issues related to sexism and homophobia. Encourages development of well-considered views about the various issues, research, and theories.
Additional Information: Departmental Category: Graduate Education

EDUC 6230 (3) Ethics in Education
Investigates controversies in education from a self-consciously ethical perspective, drawing as appropriate from moral and political theory as well as law. Focuses on public education's role in fostering democratic citizenship and providing equal educational opportunity. Critically evaluates various education reform policies and curriculum policies. Applies method commonly used in medical ethics to make decisions regarding concrete ethically problematic cases.
Additional Information: Departmental Category: Graduate Education

EDUC 6240 (3) African American Education in the United States
Explores development of schooling for African Americans in the U.S.. Emphasizes historical and contemporary struggles of this group in their quest to access meaningful educational opportunities. Examines how social, economic, political, and judicial action defined and organized policy and practice for this group. EDUC 4240 and 6240 are identical courses.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: General Education

EDUC 6250 (3) Higher Education in the United States
Examines major issues in higher education focusing on the sociopolitical contexts in which US universities operate as gatekeepers to opportunities. Topics include the purposes and history of higher education in the United States, college teaching and learning, finance and governance, issues of access and equity related to race, gender, sexual orientation, gender identity, immigration status and class, and student life.
Grading Basis: Letter Grade

EDUC 6318 (3) Psychological Foundations of Education
Introduces students to theoretical and empirical contributions of educational and developmental psychology and the learning sciences emphasizing applications to educational practices. Topics include learning, development, cognitive processes, social and cultural context, motivation, assessment and individual differences.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 6325 (3) Anthropology of Education
Applies anthropological perspectives to research in educational settings. Focuses on theories of culture, cultural transmission and acquisition, and cultural reproduction and production for understanding schooling and its outcomes.
Additional Information: Departmental Category: Graduate Education

EDUC 6328 (3) Advanced Child Growth and Educational Development
Introduces students to recent theoretical and research advances in the study of children and adolescent's cognitive, social and emotional development, with an emphasis on implications for learning in and out of school.
Additional Information: Departmental Category: Graduate Education

EDUC 6368 (3) Adolescent Psychology and Development for Teachers
Examines current theory and research on adolescent development, learning, motivation, and academic achievement. Emphasizes how theory and research can inform instructional decisions in the secondary classroom.
Requisites: Restricted to English-Secondary Education (EDEN), Social Studies-Secondary Educ (EDSS), Mathematics-Secondary Educ (EDMA) or Science-Secondary Educ (EDSC) graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 6405 (3) College Student Development and Counseling Theories
Covers theories of student development in higher education as they apply to the growth of students and the influence of the college environment on growth and development. Examines selected approaches to counseling theory and practice. Theoretical formulations basic to human development and the counseling process are presented including historical and philosophical background. This course explores themes of human development, self-evolution, meaning making, separation and connection, and moral meaning making, and how college students are other adults construct themselves and the meaning they make of their experience.
Grading Basis: Letter Grade

EDUC 6504 (3) Issues and Methods in Cognitive Science
Interdisciplinary introduction to cognitive science, examining ideas from cognitive psychology, philosophy, education, and linguistics via computational modeling and psychological experimentation. Department enforced prerequisite: graduate standing or at least one upper-division course in computer science, linguistics, philosophy, or psychology.
Equivalent - Duplicate Degree Credit Not Granted: CSCI 6402 and LING 6200 and PHIL 6310 and PSYC 6200 and SLHS 6402
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 6505 (1-2) Readings and Research in Cognitive Science
Interdisciplinary reading of innovative theories and methodologies of cognitive science. Share interdisciplinary perspectives through in-class and online discussion and analysis of controversial texts and of their own research in cognitive science. Required for joint PhD in cognitive science.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 6506 (2) Cognitive Science Research Practicum
Independent, interdisciplinary research project in cognitive science for advanced graduate students pursuing a joint PhD in an approved core discipline and cognitive science. Research projects integrate at least two areas within the cognitive sciences: psychology, computer science, linguistics, education, philosophy. Students need commitments from two mentors for their project.
Equivalent - Duplicate Degree Credit Not Granted: CSCI 7412 and LING 7415 and PHIL 7415 and PSYC 7415 and SLHS 7418
Requisites: Requires prerequisite course of CSCI 6402 or EDUC 6504 or LING 6200 or PHIL 6310 or PSYC 6200 (minimum grade D-). Restricted to graduate students only.
Recommended: Prerequisite EDUC 6505.
Additional Information: Departmental Category: Graduate Education
EDUC 6516 (2) Cognitive Science Research Practicum 2
Independent, interdisciplinary research project in cognitive science for advanced graduate students pursuing a joint PhD in an approved core discipline and cognitive science. Research projects integrate at least two areas within the cognitive sciences: psychology, computer science, linguistics, education, philosophy. Students need commitments from two mentors for their project.
Equivalent - Duplicate Degree Credit Not Granted: CSCI 7422 and LING 7425 and PHIL 7425 and PSYC 7425 and SLHS 7428
Requisites: Requires prerequisite course of LING 7415 or PSYC 7415 or CSCI 7412 or EDUC 6506 (minimum grade D-). Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 6705 (3) Leadership in Higher Education
Examines theory and research on leadership and management in higher education, and the structure and governance of colleges and universities. Explores the internal organization and culture of institutions, as well as external and related bodies that affect higher education such as the federal and state governments, accrediting agencies, associations and foundations.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 6804 (1-4) Special Topics
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6811 (3) Teaching and Learning Biology
Provides an introduction to recent research into student learning on the conceptual foundations of modern biology, together with pedagogical methods associated with effective instruction and its evaluation. Students will be involved in active research into conceptual and practical issues involved in biology education, methods to discover student preconceptions, and the design, testing and evaluation of various instructional interventions.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 4811 and MCDB 4811 and MCDB 5811
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 6844 (1-4) Master's Independent Study
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6855 (1-4) Independent Study in Curriculum and Instruction---Master's Level
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6877 (1-4) Independent Study in Educational Equity & Cultural Diversity: Master's Level
An independent study may be established between a student and a tenure track faculty member if both parties are amenable. The topics, readings and assignments will vary based upon mutually agreed upon goals. The student will be responsible for obtaining and submitting the necessary paperwork from/to the Office of Student Services in the School of Education. This is a variable credit course that ranges from 1 to 4 credits. The number of credits will be determined by the professor based on the workload.
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6888 (1-4) Independent Study in Educational and Psychological Studies---Master's Level
Repeatable: Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6899 (1-4) Independent Study in Educational Foundations Policy & Practice--Master's Level
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6915 (1-4) Practicum in Curriculum and Instruction
Repeatable: Repeatable for up to 4.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6916 (1-4) Practicum in Research and Evaluation Methodology
Additional Information: Departmental Category: Graduate Education

EDUC 6917 (1-4) Practicum in Educational Equity and Cultural Diversity
Repeatable: Repeatable for up to 4.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6918 (1-4) Practicum in Educational and Psychological Studies
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6919 (1-4) Practicum in Educational Foundations Policy and Practice
Repeatable: Repeatable for up to 4.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6925 (1-4) Readings in Curriculum and Instruction
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6926 (1-4) Readings in Research and Evaluation Methodology
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6927 (1-4) Readings in Educational Equity and Cultural Diversity
Five times per semester our faculty and PhD students gather to explore topics that are relevant to becoming a scholar and researcher in our field. All EEC/D PhD students are encouraged to attend; however, for first and second year PhD students attendance is required.
Repeatable: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education
EDUC 6928 (1-4) Readings in Learning Sciences and Human Development
Repeatability: Repeatable for up to 12.00 total credit hours.
Additional Information: Departmental Category: Graduate Education

EDUC 6929 (1-4) Readings in Educational Foundations Policy and Practice
Repeatability: Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 6944 (1-3) Master's Candidate for Degree
Repeatability: Repeatable for up to 12.00 total credit hours.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: Graduate Education

EDUC 6945 (3) MA Capstone Seminar in Foundations of Education
Supports students completing a summative writing assignment for their Masters degree requirements. Writing assignments will be designed around the professional and academic goals of each student, in collaboration with the student's academic advisor. Students will analyze research studies across different disciplinary and methodological approaches. Through instructor coaching and peer review exercises, students will draft and refine a final assignment.
Requisites: Restricted to MA students in Education (EPSY-MA, EFPP-MA, HEDU-MA).
Grading Basis: Letter Grade
Additional Information: Departmental Category: Graduate Education

EDUC 6954 (1-6) Master's Thesis
Repeatability: Repeatable for up to 6.00 total credit hours.
Additional Information: Departmental Category: Graduate Education

EDUC 6964 (3) Capstone: Inquiry in the Content Areas
Supports students in using and building on the ideas and content encountered in previous coursework. Requires students to conceptualize, design and implement an original research project that will serve as exit requirement for the degree. Reads and engages in research and theory associated with Teacher Research (i.e. research conducted by teachers for professional purposes).
Requisites: Restricted to Educ-Curriculum Instruction (EDCI) graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 7015 (3) Critical Approaches for Teacher Education/University Instructor Development
Designed to support doctoral students in development as university level instructors/teacher educators, particularly in relation to undergraduate courses that center equity and justice as central topics, this course will draw on critical perspectives and pedagogies to shape course goals, material/content and pedagogical approach. This will be done in two primary ways: a) through the use of pedagogies adapted from Freirean Culture Circles and Boalian Theater, and b) through the application of practitioner inquiry approaches designed to develop critical, reflective practices/habits of mind among teachers and teacher educators.
Requisites: Restricted to EDUC PhD students with plan codes EEDC-PHD, EFP-PHD, EDCI-PHD, EPSY-PHD or REME-PHD.

EDUC 7316 (3) Intermediate Statistical Methods
Studies sampling theory and inferential statistics; advanced applications for testing of hypotheses regarding central tendency, variability, proportion, correlation, and normality; chi-square and the analysis of frequency data; multiple regression and prediction; introduction to the analysis of variance; and related computer programs for statistical analysis.
Requisites: Requires prerequisite course of EDUC 5716 (minimum grade D).
Additional Information: Departmental Category: Graduate Education

EDUC 7326 (3) Quasi-Experimental Design in Causal Inference in Social Sciences
Focuses on experimental and quasi-experimental designs in educational research; applications of the general linear model; power and statistical efficiency; randomization and control; multiple comparisons; factorial experiments and interaction with fixed-factor and mixed design; analysis of covariance; effects of assumption violations; and related computer programs for statistical analysis.
Additional Information: Departmental Category: Graduate Education

EDUC 7336 (3) Methods of Survey Research and Assessments
Examines theory and techniques involved in each stage of survey research, including problem formulation, questionnaire development, interview and mailed surveys, assessing reliability and validity, sampling plans, data reduction (e.g., factor analysis), and analysis of continuous and categorical data.
Requisites: Requires prerequisite courses of EDUC 5726 and EDUC 7316 (all minimum grade D).
Additional Information: Departmental Category: Graduate Education

EDUC 7346 (3) Ethnographic Methods in Educational Research
Explores the history of ethnography and its translation into educational research. Students practice participant observation, interviewing, journal writing, artifact searches, qualitative analysis and interpretation, and styles of reporting.
Requisites: Requires a prerequisite course of EDUC 6325 (minimum grade C).
Additional Information: Departmental Category: Graduate Education

EDUC 7376 (3) Theory and Practice of Educational and Psychological Measurement
Introduces theories of measurement and applications, and presents classical test theory. Includes quantitative concepts, methods, and computational techniques for the development, application, and evaluation of measurement instruments in social/behavioral science and education.
Requisites: Requires prerequisite course of EDUC 5716 (minimum grade D).
Additional Information: Departmental Category: Graduate Education
EDUC 7386 (3) Educational Evaluation
Builds an understanding of the range of approaches taken by educational evaluators, focusing particularly on the evaluation of programs. Explores the nature of different evaluation perspectives and how these disparate views translate into methodological and conceptual models. Students develop a familiarity with the most common and influential approaches to evaluation.

**Requisites:** Restricted to graduate students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 7396 (3) Categorical Data Analysis
Introduces contemporary advanced multivariate techniques and their application in social science research. Methods include multivariate regression and analysis of variance, structural equation models, and factor analysis. Prior experience with Anova and multiple regression is assumed.

**Requisites:** Restricted to graduate students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 7416 (3) Seminar: Research Methodology
Presents selected topics for advanced study in educational research, statistics, measurement, and evaluation.

**Repeatable:** Repeatable for up to 12.00 total credit hours.

**Additional Information:** Departmental Category: Graduate Education

EDUC 7436 (3) Item Response Theory
Includes one-, two-, and three-parameter logistic models for dichotomously-scored items and partial credit models for polychotomously-scored items; applications of the models to problems such as equating of test forms, test design, computerized adaptive testing, and the detection of item bias.

**Requisites:** Requires prerequisite courses of EDUC 7316 and EDUC 7376 (all minimum grade D-).

**Additional Information:** Departmental Category: Graduate Education

EDUC 7446 (3) Seminar: Policy Issues in Education
Explores major policy issues confronting U.S. education and examines the nature and undertaking of educational policy studies. Learn to approach policy issues from a contextual perspective that highlights systemic forces and analyzes and applies differing policy instruments. While a wide variety of policies are covered in the course, it particularly emphasizes issues of educational equity.

**Requisites:** Restricted to graduate students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 7456 (3) Multilevel Modeling
Covers in depth two advanced multivariate models common to social science research: latent variable (structural equation) models and multilevel (hierarchical) models. Topics may be taught with a particular analytic context, such as measurement of change (longitudinal analysis) or experimental design.

**Additional Information:** Departmental Category: Graduate Education

EDUC 7775 (1) Topics in Cognitive Science
Reading of interdisciplinary innovative theories and methodologies of cognitive science. Students participate in the ICS Distinguished Speakers series that hosts internationally recognized cognitive scientists who share and discuss their current research. Session discussions include analysis of leading edge and controversial new approaches in cognitive science.

**Equivalent - Duplicate Degree Credit Not Granted:** CSCI 7772 and LING 7775 and PHIL 7810 and PSYC 7775 and SLHS 7775

**Repeatable:** Repeatable for up to 4.00 total credit hours.

**Requisites:** Restricted to graduate students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 8014 (3) Advanced Seminar in Democracy, Diversity and Social Justice
Addresses the sociopolitical context of multiculturalism and education, and the sociocultural context of learning. Examines critical issues involved in making schooling responsive to an increasingly multicultural and multilingual society.

**Repeatable:** Repeatable for up to 9.00 total credit hours.

**Requisites:** Requires prerequisite course of EDUC 8210 (minimum grade B-). Restricted to EDCI, EECD, EPSY, EFPP or REME PhD graduate students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 8025 (3) Seminar: Curriculum Theories
Examines in depth recent developments in curriculum theory highlighting conceptual, contextual, and normative issues. Substantially explores distinct curricular traditions, corresponding conceptions of the good life along with related approaches to reason and emotion. Focuses on the works of prominent curriculum theorists.

**Additional Information:** Departmental Category: Graduate Education

EDUC 8045 (3) Philosophical Issues in Educational Research
Familiarizes students with important concepts and issues from the philosophy of science and, to a lesser extent, political theory and ethics; grounds such concepts and issues in the literature (often in terms of primary philosophical sources); and stimulates students to apply this material to the field of educational research in an informed way.

**Requisites:** Restricted to PhD students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 8055 (3) Theoretical Issues in Education Policy
Provides students with an examination of the theories behind education policy analysis. Takes a thematic approach to the study of policy in order to understand how policy agendas are set; how democratic deliberation should be linked with research and policy; and the relationship between politics, media, social structures, research and policies.

**Requisites:** Restricted to PhD students only.

**Additional Information:** Departmental Category: Graduate Education

EDUC 8115 (3) History and Policy Issues in Teaching and Teacher Education
Examine how issues and dilemmas in teacher education are grounded in historical and political contexts. Analyze patterns in preparation of new teachers, in mechanisms used to govern entry into teaching and make determinations of quality of teachers and teaching, and in efforts to professionalize and de-professionalize teachers and teaching. Investigate contemporary teacher education debates to better understand potential research-policy-practice connections.

**Requisites:** Restricted to EDUC PhD students with plan codes EECD-PHD, EFPP-PHD, EDCI-PHD, EPSY-PHD or REME-PHD.

**Additional Information:** Departmental Category: Graduate Education

EDUC 8125 (3) Seminar: Radical Education Theories
Examines radical analyses of schooling, based on class, gender, sexual identity and race, through which U.S. public schooling is said to maintain dynamics of oppression and domination that undermines the schools’ democratic premise. Scrutinizes the conceptual framework, interpretive and explanatory adequacy, and ethical justification of radical claims.

**Additional Information:** Departmental Category: Graduate Education
EDUC 8135 (3) Theories of Teacher Learning and Teacher Education
Examines the potential range and roles of theory in analyzing prospective and practicing teachers’ learning (experiences). Explores various conceptions of teacher learning, including, but not limited to: teacher learning as a knowledge-centric phenomenon; teacher learning as a process of assembling a repertoire of practice; teacher learning as an identity-work phenomenon; and teacher learning as an activist/action-in-the-world phenomenon.
Requisites: Restricted to EDUC PhD students with plan codes EECD-PHD, EFPP-PHD, EDCI-PHD, EPSY-PHD or REME-PHD.
Additional Information: Departmental Category: Graduate Education

EDUC 8145 (3) Designing for Teacher Learning and Teacher Education
Examines questions and issues related to the design of preservice teacher education programs and practicing teachers’ professional development/learning opportunities. Analyzes the program and/or learning opportunity conditions, features and approaches that potentially support and/or constrain prospective and practicing teachers’ learning, particularly in relation to their development and as asset-oriented teachers.
Additional Information: Departmental Category: Graduate Education

EDUC 8155 (3) Advanced Topics in Literacy Education
Examines special topics in theory and research related to literacy and literacy education. Topics vary each semester.
Repeatable: Repeatable for up to 12.00 total credit hours.
Additional Information: Departmental Category: Graduate Education

EDUC 8165 (3) Advanced Topics in Mathematics Education
Examines special topics in theory and research related to mathematics education. Topics vary each semester.
Repeatable: Repeatable for up to 12.00 total credit hours.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 8175 (3) Advanced Topics in Science Education
Engages participants in the process of curriculum development. Principles that guide the development of curricula and learning environments are discussed as they integrate with learning theory. Participants develop and/or test specific activities in the classroom and modify them as a result. There is a particular focus on incorporating the practices of the discipline into each content-based activity.
Repeatable: Repeatable for up to 12.00 total credit hours.
Additional Information: Departmental Category: Graduate Education

EDUC 8210 (3) Perspectives on Classroom Teaching and Learning
Introduces students to various theoretical perspectives informing educational research and how they are employed to study teaching, learning, and policy in K-12 classrooms. Includes reading and discussion related to the assumptions, questions, methods, and findings associated with theoretical traditions within and across disciplines.
Requisites: Restricted to EDCI, EECD, EPSY, EFPP or REME PhD graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 8220 (3) Introduction to Educational Research and Policy
Introduces conceptual and empirical issues and controversies in educational research and policy. Complements other EDUC doctoral courses in quantitative and qualitative methodology.
Requisites: Restricted to EDUC PhD students with plan codes EECD-PHD, EFPP-PHD, EDCI-PHD, EPSY-PHD or REME-PHD.
Additional Information: Departmental Category: Graduate Education

EDUC 8230 (3) Quantitative Methods I
Explores the use of statistics to formalize research design in educational research. Introduces descriptive statistics, linear regression, probability, and the basics of statistical inference. Includes instruction in the use of statistical software, (e.g., SPSS).
Requisites: Restricted to EDCI, EECD, EPSY, EFPP or REME PhD graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 8240 (3) Quantitative Methods II
Continues the exploration of research design in the social sciences, especially the evaluation of the quantitative research reported in professional journals. Introduces instances of the general linear model (both multiple regression and ANOVA) and its application to educational research.
Requisites: Requires prerequisite course of EDUC 8230 (minimum grade D-). Restricted to EDCI, EECD, EPSY, EFPP or REME PhD graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 8250 (3) Qualitative Methods I
Introduces students to the theory and practice of qualitative research in education. First of a two-course sequence covering research design, theoretical perspectives, and methods. Preference given to first-year doctoral students in education.
Requisites: Restricted to EDCI, EECD, EPSY, EFPP or REME PhD graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 8260 (3) Qualitative Methods II
Builds on EDUC 8250 to develop knowledge and skills in ethnographic and case study research. Second of a two-course sequence covering qualitative research design, theoretical perspectives, and methods.
Requisites: Restricted to EDCI, EECD, EPSY, EFPP or REME PhD graduate students only.
Additional Information: Departmental Category: Graduate Education

EDUC 8348 (3) Seminar: Human Development
Intensive study of selected topics in human development. The focus of the seminar will vary depending on the instructor’s expertise and students’ interests. Recent topics include adolescent development in social context, Vygotsky and Cultural-Historical Activity Theory, and design-based research methods. Repeatable for credit up to 6 total credit hours.
Repeatable: Repeatable for up to 6.00 total credit hours.
Requisites: Restricted to graduate students only.
Recommended: Prerequisite EDUC 6318 or EDUC 8210 or instructor consent.
Additional Information: Departmental Category: Graduate Education

EDUC 8358 (3) Seminar: Human Learning
Intensive study of selected topics in human learning. The focus of the seminar will vary depending on the instructor’s expertise and students’ interest. Recent topics include sociocultural and social practice theories, STEM learning in and out of school. Repeatable for credit up to 6 total credit hours.
Repeatable: Repeatable for up to 6.00 total credit hours.
Recommended: Prerequisite EDUC 6318 or EDUC 8210 or instructor consent.
Additional Information: Departmental Category: Graduate Education
EDUC 8605 (3) Research and Professional Ethics for Educational Researchers
Examines the central issues and venerable theories of philosophical ethics that have historically framed research ethics. Also examines contemporary ethical theory that emphasizes a greater attention to the social sciences. Focuses on research ethics (both research of human subjects and research misconduct), various issues of professional academic ethics, and the AERA ethical code.  
**Requisites:** Restricted to graduate students only.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8610 (3) Advanced Topics in Educational Equity and Cultural Diversity
Examines special topics in theory and research related to educational equity and cultural diversity in education. Topics vary each semester.  
**Repeatable:** Repeatable for up to 12.00 total credit hours.  
**Requisites:** Restricted to graduate students only.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8615 (3) Language Issues in Education Research
Examines ways in which issues of language can affect the validity of educational research. Discusses how language can be properly addressed with a multidisciplinary perspective through different stages in the process of an investigation, including design, sampling, data collection, and data analysis. Provides the conceptual basis for addressing linguistic diversity from a multidisciplinary perspective.  
**Requisites:** Restricted to graduate students only.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8710 (3) Measurement in Survey Research
Introduces students to classical test theory and item response theory. Emphasizes the process of developing, analyzing and validating a survey instrument. Focuses on developing a survey instrument with items that derive from a clearly delineated theory for the construct to be measured. Analyzes item responses and put together a validity argument to support the proposed uses of the survey.  
**Requisites:** Restricted to graduate students only.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8720 (3) Advanced Topics in Measurement
Focuses on psychometric models for measurement and their applications in educational and psychological research. Emphasizes understanding and evaluating the utility of models from item response theory (IRT). Applies and compares measurement models in the context of simulated or empirical data sets.  
**Recommended:** Prerequisite EDUC 8710.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8730 (3) Advanced Qualitative Data Analysis
Requires students begin semester with qualitative data already collected (from class project, pilot study, dissertation). Instructors present diverse methods of analyzing data and writing about interpretations. Instructors customize part of course to address specific topic of expertise, e.g., discourse analysis, video analysis, textual analysis, ethnographic analysis.  
**Repeatable:** Repeatable for up to 12.00 total credit hours.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8740 (3) Advances in the Assessment of Student Learning
Focuses on theories underlying traditional and contemporary proposals for assessment of student learning, and design and research of large-scale and classroom-based methods to assess student learning. Explores intersections between large-scale and classroom assessment, although greater attention is given to issues related to classroom assessment.  
**Requisites:** Restricted to graduate students only.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8750 (3) Research in Teaching and Teacher Education
Invites students to acquire a deeper understanding of the history and challenges in teacher education research, strengthen their knowledge of theoretical and methodological approaches to the study of teacher education, and discuss their own potential contributions to the field.  
**Requisites:** Restricted to EDUC PhD students with plan codes EECJ-PHD, EFP-PHD, EDD-PHD, EPSY-PHD or REME-PHD.  

EDUC 8804 (3) Special Topics
Designed to meet needs of graduate students with topics of pertinent interest.  
**Repeatable:** Repeatable for up to 12.00 total credit hours. Allows multiple enrollment in term.  
**Requisites:** Restricted to graduate students only.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8844 (1-4) Doctoral Independent Study
Repeatable: Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8855 (1-4) Independent Study in Curriculum and Instruction: Doctoral Level
Repeatable: Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8866 (1-4) Independent Study in Research and Evaluation Methodology: Doctoral Level
Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8877 (1-4) Independent Study in Educational Equity and Cultural Diversity: Doctoral Level
An independent study may be established between a doctoral student and a tenure track faculty member if both parties are amenable. The topics, readings and assignments will vary based upon mutually agreed upon goals. The student will be responsible for obtaining and submitting the necessary paperwork from/to the Office of Student Services in the School of Education. This is a variable credit course that ranges from 1 to 4 credits. The number of credits will be determined by the professor based on the workload.  
**Repeatable:** Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.  
**Additional Information:** Departmental Category: Graduate Education

EDUC 8888 (1-4) Independent Study in Learning and Human Development: Doctoral Level
Repeatable: Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.  
**Additional Information:** Departmental Category: Graduate Education
EDUC 8899 (1-4) Independent Study in Educational Foundations Policy and Practice: Doctoral Level
Repeatable: Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 8935 (1-6) Internship in Curriculum and Instruction
Repeatable: Repeatable for up to 24.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 8936 (1-6) Internship in Research and Evaluation Methodology
Repeatable: Repeatable for up to 24.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 8937 (1-6) Internship in Educational Equity and Cultural Diversity
Repeatable: Repeatable for up to 24.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 8938 (1-6) Internship in Learning Sciences and Human Development
Repeatable: Repeatable for up to 24.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 8939 (1-6) Internship in Educational Foundations Policy and Practice
Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Graduate Education

EDUC 8950 (3) Proposal and Dissertation Writing
Provides students with ongoing opportunities to write social science research in the context of the design, analysis and data representation, development, and write-up of students' dissertation proposals and dissertations. Students will learn to expand how they think about and use evidence, clarify their ideas and arguments, and improve their writing. Students working on proposals and dissertations should enroll.
Repeatable: Repeatable for up to 6.00 total credit hours.
Requisites: Restricted to EDUC PhD students with plan codes EECD-PHD, EFPP-PHD, EDCI-PHD, EPSY-PHD or REME-PHD.
Additional Information: Departmental Category: Graduate Education

EDUC 8994 (1-10) PhD Doctoral Dissertation
Repeatable: Repeatable for up to 60.00 total credit hours.
Additional Information: Departmental Category: Graduate Education