PROGRAMS OF STUDY

The School of Education provides initial teacher licensure programs that ensure rigorous content preparation and extensive clinical experience in local partner schools. Initial teacher licensure programs are available at the undergraduate, post-baccalaureate and master’s level. The School of Education collaborates with the College of Arts & Sciences, the College of Engineering and Applied Science and the College of Music to design initial teacher licensure programs for undergraduates that combine a major in Arts & Sciences, Engineering and Applied Science or Music with courses and field experiences in education. Undergraduates pursing licensure in Secondary or K–12 Music complete the teacher licensure requirements while earning a bachelor’s degree from another college on campus. Undergraduate students interested in K–6 Elementary Education pursue a major in Elementary Education.

Through the CU Engage program, undergraduates are provided opportunities to participate in community-based research and programs. Undergraduate students pursuing a major in the College of Arts & Sciences may apply for a dual degree with a major in Leadership and Community Engagement. This option is available to Arts & Sciences undergraduate students pursuing a major in Anthropology, Political Science, Sociology, Ethnic Studies, Women and Gender Studies, Geography, English, Jewish Studies, Philosophy, Spanish & Portuguese or Asian Studies.

With the Division of Continuing Education, an online degree in Interdisciplinary Studies is available for qualified, non-traditional students who otherwise may not have access to the university. The Interdisciplinary Studies major fosters academic inquiry and allows students the flexibility to tailor the degree to personal and professional goals with a focus on education and youth development.

In addition, the School of Education offers two undergraduate minors – one in Education and one in Leadership Studies – and an undergraduate certificate in STEM Education.

Course codes for the programs are EDUC, INST, INVS, and LEAD.

Bachelor's Degrees

- Elementary Education - Bachelor of Arts (BA) (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/elementary-education-bachelor-arts-ba)
- Interdisciplinary Studies - Bachelor of Arts (BA) (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/interdisciplinary-studies-bachelor-arts-ba)
- Leadership and Community Engagement - Bachelor of Arts (BA) (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/leadership-community-engagement-bachelor-arts-ba)

Minors

- Education - Minor (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/education-minor)
- Leadership Studies - Minor (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/leadership-studies-minor)

Certificates

- STEM Education - Certificate (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/education-minor)

Teacher Licensure Programs

- Post-Baccalaureate (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/teacher-licensure-program/post-baccalaureate)
- Undergraduate Nondegree (catalog.colorado.edu/undergraduate/colleges-schools/education/programs-study/teacher-licensure-program/undergraduate-nondegree)

Faculty

While many faculty teach both undergraduate and graduate students, some instruct students at the undergraduate level only. For more information, contact the faculty member’s home department.

Anderson, Ronald
Professor Emeritus

Andrew, Julie Ann (https://experts.colorado.edu/display/fisid_148635)
Instructor; MEd, Univ of New South Wales (Australia)

Atteberry, Allison (https://experts.colorado.edu/display/fisid_154598)
Assistant Professor; PhD, Stanford University

Baca, Leonard M.
Professor Emeritus; EdD, University of Northern Colorado

Begley, Donna M. (https://experts.colorado.edu/display/fisid_131000)
Senior Instructor

Boardman, Alison Gould (https://experts.colorado.edu/display/fisid_141887)
Assistant Research Professor; PhD, University of Texas at Austin

Briggs, Derek Christian Mauthner (https://experts.colorado.edu/display/fisid_129597)
Professor; PhD, University of California, Berkeley

Bullington, Sam N. (https://experts.colorado.edu/display/fisid_152528)
Lecturer

Cline, Ruth
Professor Emerita

Dalton, Bridget Monroe (https://experts.colorado.edu/display/fisid_151711)
Associate Professor; EdD, Harvard University

Donato, Ruben (https://experts.colorado.edu/display/fisid_105537)
Professor; PhD, Stanford University

Dutro, Elizabeth (https://experts.colorado.edu/display/fisid_141157)
Professor; PhD, University of Michigan Ann Arbor

Escamilla, Kathy M. (https://experts.colorado.edu/display/fisid_109224)
Professor; PhD, University of California, Los Angeles

Flexer, Roberta
Professor Emerita
Courses

Education

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.

Repeatable: Repeatable for up to 2.00 total credit hours.

Requisites: Restricted to Education (EDUC) or Leadership/Community Engagement (LDCE) majors only.

Furtak, Erin M. (https://experts.colorado.edu/display/fisid_144504)
Associate Professor; PhD, Stanford University

Glass, Gene V. (https://experts.colorado.edu/display/fisid_149833)
Research Professor; PhD, University of Wisconsin–Madison

Haas, John
Professor Emeritus

Hand, Victoria (https://experts.colorado.edu/display/fisid_144609)
Associate Professor; PhD, Stanford University

Hodge, Stephen
Professor Emeritus

Hoover, John J. (https://experts.colorado.edu/display/fisid_113520)
Associate Research Professor; PhD, University of Colorado Boulder

Hopewell, Susan Walsh (https://experts.colorado.edu/display/fisid_145039)
Assistant Professor; PhD, University of Colorado Boulder

Hopkins, Kenneth
Professor Emeritus

House, Ernie
Professor Emeritus

Jurow, Aachey Susan (https://experts.colorado.edu/display/fisid_129478)
Associate Professor; PhD, University of California, Berkeley

Kirshner, Benjamin R. (https://experts.colorado.edu/display/fisid_134707)
Associate Professor, Faculty Director; PhD, Stanford University

Kraft, Richard
Professor Emeritus

Lecompte, Margaret D.
Professor Emerita

Linn, Robert L.
Professor Emeritus

Liston, Daniel P. (https://experts.colorado.edu/display/fisid_102033)
Professor; PhD, University of Wisconsin–Madison

Lopez, Enrique J. (https://experts.colorado.edu/display/fisid_151426)
Assistant Professor; PhD, Stanford University

McGinley, William (https://experts.colorado.edu/display/fisid_102195)
Associate Professor; PhD, University of Illinois at Urbana–Champaign

Meens, David Eric (https://experts.colorado.edu/display/fisid_145241)
Lecturer

Meyer, Elizabeth Jackson (https://experts.colorado.edu/display/fisid_156354)
Associate Professor; Associate Dean; PhD, McGill Univ (Canada)

Molnar, Alex John (https://experts.colorado.edu/display/fisid_148836)
Research Professor; MSW, University of Wisconsin-Milwaukee

Moses, Michele S. (https://experts.colorado.edu/display/fisid_141025)
Professor, Associate Dean; PhD, University of Colorado Boulder

Nogueron-Liu, Silvia (https://experts.colorado.edu/display/fisid_155783)
Assistant Professor; PhD, Arizona State University

O’Connor, Kevin C.
Assistant Professor; PhD, Clark University

Otero, Valerie K. (https://experts.colorado.edu/display/fisid_118377)
Professor; PhD, University of California, San Diego

Penuel, William Richard (https://experts.colorado.edu/display/fisid_149719)
Professor; PhD, Clark University

Polman, Joseph Louis (https://experts.colorado.edu/display/fisid_151296)
Professor, Associate Dean; PhD, Northwestern University

Ramirez, Karen E. (https://experts.colorado.edu/display/fisid_116951)
Instructor; PhD, University of Illinois at Urbana–Champaign

Shepard, Lorrie A. (https://experts.colorado.edu/display/fisid_105949)
Distinguished Professor; PhD, University of Colorado Boulder

Stillman, Jamy A. (https://experts.colorado.edu/display/fisid_156381)
Associate Professor; PhD, University of California, Los Angeles

Taylor, Edward V. (https://experts.colorado.edu/display/fisid_151510)
Assistant Professor; PhD, University of California, Berkeley

Webb, David C. (https://experts.colorado.edu/display/fisid_141204)
Associate Professor; PhD, University of Wisconsin–Madison

Welner, Kevin G. (https://experts.colorado.edu/display/fisid_115565)
Professor; PhD, University of California, Los Angeles

White, Terrenda Corisa (https://experts.colorado.edu/display/fisid_152828)
Assistant Professor; PhD, Teachers College at Columbia University

Willmann, Kent D. (https://experts.colorado.edu/display/fisid_148075)
Instructor

Wilson, Terri Suzanne (https://experts.colorado.edu/display/fisid_155469)
Assistant Professor; PhD, Columbia University
EDUC 1080 (3) Decolonizing Education: Design for New Futures
What does critical pedagogy mean? What does it mean to be a transformative educator? What does emancipatory, critical, culturally sustaining education praxis, actually look like? These are the central questions that guide this course. In this course, students will have the opportunity to explore the intersection of curriculum design, critical pedagogy, and learning theory through conversations with scholars, teaching sample lessons, reflective writing, practice-based pedagogical activities, and examinations of current-events related to critical pedagogy.
Grading Basis: Letter Grade

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.
Repeatable: 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, GEOL, 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 2075 (1) Basic Education Teaching
This course focuses on the design and facilitation of mathematics experiences that embody more active approaches to learning advanced mathematics topics, including advanced algebra, trigonometry, and calculus. The parallel investigation of mathematics content, task design, and issues of teaching and learning occur throughout the course; this intertwining of perspectives is accomplished through the use of various instructional materials, readings, activities, and mathematics curricula. One overarching goal is to engage participants in advanced mathematical reasoning, to reflect on their own knowledge of mathematical relationships, and to examine pedagogical ideas that can foster productive mathematical teaching and learning.

Programs of Study
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 those 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: General 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 with 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 2425 (3) Foundations of Bilingual/Multicultural Education
Provides the conceptual, linguistic, sociological, historical, political, and legal foundations that have shaped bilingual education policies, program models, and teaching and assessment practices of bilingual and multicultural education in the U.S. Designed for undergraduate elementary teacher education majors, the course presents an overview of the types of bilingual education programs and the principles that anchor equitable and quality bilingual and multicultural education for emergent bilingual students, including those identified as English learners.

Requisites: Restricted to Elementary Education (ELED-BA) majors only.

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. Examines student 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 3190 (3) Introduction to Teaching and Learning
This online course is part of the BAIS degree-completion program. The course engages students in questions about what it means to teach and what it means to learn. Through readings, video, and illustrations of teaching and learning in and outside of schools, the course builds understandings about some key areas of teaching, learning, and schooling that will complement the content from other courses in the program. The course is centered in a framework of educational equity and justice that is threaded through the modules. The course is designed to support students in their post-degree goals across career contexts in which knowledge of teaching learning will enhance their work.

Grading Basis: Letter Grade

EDUC 3320 (3) Literacy in the Elementary Classroom 1
Over the two-course sequence in literacy, students in the elementary major develop a foundational knowledge of core aspects of literacy learning and instruction and apply this knowledge in practica settings, working at individual, small group, and whole-class levels. Literacy 1 focuses primarily on the structure and components of equitable and robust reading instruction in K-5 classrooms, the five pillars of the reading process (phonics, phonemic awareness, fluency, vocabulary, and comprehension), and the analysis and implementation of evidence-based reading instruction practices, with some connections to writing development and assessment and writing instruction.

Requisites: Requires corequisite course of EDUC 3350 and EDUC 4535. Restricted to Elementary Education (EDEL) majors only.

Grading Basis: Letter Grade

EDUC 3321 (3) Literacy in the Elementary Classroom 2
Over the course of the two-course sequence in literacy, students in the elementary major develop a foundational knowledge of core aspects of literacy learning and instruction and apply this knowledge in practica settings, working at individual, small group, and whole-class levels. Literacy 2 builds on the goals of the first course in the sequence and provides a central focus on the structure and components of equitable and robust writing instruction in K-5 classrooms. The course addresses the skills and processes of writing, how to support and engage writers, writing assessment, and the analysis and enactment of evidence-based writing instruction practices. In addition, the course includes content area literacy and continues building students' facilities with digital and multimodal literacy in elementary classrooms.

Requisites: Requires prerequisite courses of EDUC 3320 and EDUC 3350 and EDUC 4535 (all minimum grade D-). Requires corequisite courses of EDUC 4205 and EDUC 4435 and EDUC 4455. Restricted to Elementary Education (EDEL) majors only.

Grading Basis: Letter Grade

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 disabilities; f) understanding potential variations across federal disabilities categories; g) teaching students with gifts and talents and; h) collaborating with families and professionals.

Requisites: Restricted to Elementary Education (EDEL) majors only.

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 literary, 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. 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 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 EDEN, EDFR, EDGR, EDIT, EDJP, EDLT, EDMA, EDMU, EDSC, EDRU, EDS, EDSS or MMED majors only.

Additional Information: Departmental Category: Secondary Education
EDUC 4035 (3) Family and Community Engagement
Supports teachers to develop, improve and maintain positive relationships between families, communities, and schools. Discusses theories of family/community engagement with focus on embracing an assets-orientation. Explores the impacts families and communities can have in education, policies that impact family/community engagement in schools, and other potential bridges and barriers to meaningful partnerships. Challenges students to understand and embrace community-driven systemic education reform.
Requisites: Requires prerequisite courses of EDUC 4205, EDUC 4321, EDUC 4435, EDUC 4455 and EDUC 4595 (all minimum grade C-). Requires corequisite courses of EDUC 4331 and EDUC 4710. Restricted to Elementary Education (ELED) majors only.
Grading Basis: Letter Grade
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.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 5050
Requisites: Restricted to AMEN, ASTR, BCHM, CHEM, EBIO, GEOL, 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 explores 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
Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) only.
Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences Departmental Category: Secondary Education
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.
Additional Information: Departmental Category: Secondary Education
EDUC 4135 (3) Story and Memoir
Explores narrative theory and the epistemological/stylistic commitments of stories as the basis for writing memoir, as well as for studying the written and spoken memoirs of others. We use the word memoir to mean a story of "how one remembers one's own life." Introduces and discusses narrative theory and selected memoirs. Students engage in reflection on their own narrative-making processes and evaluate their practical and analytic understanding of daily narrative practice.
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. 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 5150
Grading Basis: Letter Grade
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 4205 (3) Elementary School Mathematics Theory and Methods
The course focuses on learning theories, different instructional practices, models, and tools that can be utilized to elicit, assess, and build on elementary students¿ mathematical reasoning. The course subscribes to a view of mathematics that (1) all students can learn mathematics, (2) that powerful mathematics learning is an active process that engages students in deep mathematical inquiry, and (3) that equitable and culturally responsive teaching of mathematics requires strong mathematics knowledge for teaching.
Requisites: Requires prerequisite courses of EDUC 4320, 3350, 4535 and 4615 (minimum grade C-). Requires corequisite courses of EDUC 4211, 4435, 4455 and 4595. Restricted to Elementary Education (ELED) majors only.
Grading Basis: Letter Grade
EDUC 4215 (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 prerequisite courses of EDUC 4205 and EDUC 4321 and EDUC 4435 and EDUC 4455 and EDUC 4595 (all minimum grade C-). Requires corequisite courses of EDUC 4035 and EDUC 4331 and EDUC 4710. Restricted to Elementary Education (ELED) majors only.
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. Degree credit not granted for EDUC 4240 and 6240.

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 Social Studies (EDSS-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, 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

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: 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 prerequisite courses of EDUC 3350, EDUC 4320, EDUC 4535 and EDUC 4615 (minimum grade C-). Requires corequisite courses of EDUC 4205, EDUC 4435, EDUC 4455 and EDUC 4595.
Restricted to Elementary Education (ELED) 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) Introduction to Bilingual/Multicultural Education
Provides and introduction for education minors and others with an interest in education policy and practice to bilingual and multicultural education programs for emergent bilingual education. Includes an overview of the history and legislation related to the education of emergent bilingual students, identification and placement, 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: Requires prerequisite courses of EDUC 3350, EDUC 4320, EDUC 4535 and EDUC 4615 (minimum grade C). Requires corequisite courses of EDUC 4205, EDUC 4321, EDUC 4435 and EDUC 4595. Restricted to Elementary Education (ELED) 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 EDEL, EDEN, EDFR, EDGR, EDJP, EDLT, EDMA, EDRU, EDSC, EDSF or EDSS majors only.
**Additional Information:** Departmental Category: General Teacher Education

EDUC 4535 (3) Assessment for Bilingual Learners
Introduce 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 (ELED-BA) majors only.

EDUC 4595 (3) Practicum for Bilingual/Multicultural and ELD Education
University supervised, school based field experiences teaching culturally and linguistically diverse students. Accompanies university coursework required for the Colorado endorsement in Culturally and Linguistically Diverse Education.
**Requisites:** Requires prerequisite courses of EDUC 3350, EDUC 4320, EDUC 4535 and EDUC 4615 (all minimum grade C-). Requires corequisite courses of EDUC 4205, EDUC 4321, EDUC 4435 and EDUC 4455. Restricted to Elementary Education (ELED) 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 (ELED-BA) majors only.

EDUC 4620 (2) LA Mentoring I: Becoming a Mentor
This field-based course is the second in a three-sequence course intended for Learning Assistants. This course provides opportunities for advanced Learning Assistants (LAs) to practice mentoring strategies as they mentor first-time LAs. LA mentors will observe and consult with their LA mentees each week and observe entire contexts in which LAs are used. In the seminar component of the course, LA mentors will discuss their readings about mentoring, skillful teaching, and group facilitation and they will reflect on their work with their LA mentees.
**Requisites:** Requires prerequisite course of EDUC 4610 (minimum grade C-).
**Grading Basis:** Letter Grade

EDUC 4630 (2) LA Mentoring II: Improving the Program
This is a continuation of EDUC 4620. LA mentors will continue to mentor first-time LAs, but they will also design and test projects intended to address issues with the LA program that they have identified in the field. LA mentors complete instructional innovation projects through cycles of design, testing, feedback, and revision. In this course, LA mentors enact projects leading to the improvement of the LA program through improved student and faculty experiences.
**Requisites:** Requires prerequisite course of EDUC 4620 (minimum grade D-).
**Grading Basis:** Letter Grade

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 Elementary Education (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 S706

EDUC 4710 (6) Elementary Student Teaching for Cultural and Linguistic Diversity 1
This course is the first semester of a year-long, elementary classroom-based internship. Building on prior and concurrent Education courses, candidates are expected to design and deliver culturally and linguistically responsive instruction in collaboration with an experienced elementary teacher, as well as independently. Assignments and the required student teaching seminar support candidates to reflect critically on their practice and learning. Recommendation for a Colorado initial teaching license requires excellent performance in both semesters of student teaching.
**Requisites:** Requires prerequisite courses of EDUC 4205, EDUC 4321, EDUC 4435, EDUC 4455 and EDUC 4595 (all minimum grade C-). Requires corequisite courses of EDUC 4035 and EDUC 4331. Restricted to Elementary Education (ELED) majors only.
**Grading Basis:** Letter Grade
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 EDEN, EDJP, EDLT, EDMA, EDRU, EDSC or EDSS (LICU or LICG) 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.
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 EDFR, EDGR or EDSP (LICU or LICG) 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.
Repeatability: 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
Repeatability: 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 preconceptions, and the design, testing and evaluation of various instructional interventions.
Equivalent - Duplicate Degree Credit Not Granted: EDUC 6811 and MCDB 4811 and EBYO 4811
Recommended: Prerequisites MCD 1150 or EBYO 1210 and MCDB 2150 and MCDB 3145.
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 5821

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 1021 or CHEM 1113 or CHEM 1400 (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 4835 (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. Also see EDUC 5835.

EDUC 4840 (1-4) Independent Study
Repeatable: 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.
Repeatable: 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.
Repeatable: Repeatable for up to 3.00 total credit hours. Allows multiple enrollment in term.
Grading Basis: Pass/Fail
Additional Information: Departmental Category: General Teacher Education

INVST Community Studies

INV 1000 (4) Responding to Social and Environmental Problems Through Service Learning
By integrating theory with required community service, students explore how problems are shaped by cultural values and how alternative value paradigms affect the definition of problems in areas such as education and the environment. Students examine different approaches to solving problems and begin to envision new possibilities.
Arts Sci Core Curr: Ideals and Values
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Invst Community Studies

INV 1513 (3) Civic Engagement: Using the Electoral Process as a Tool for Social Change
Designed to educate and inspire civic engagement primarily in the area of electoral politics. Examines various explanations of why people participate in the electoral process and whom they choose to support. Develops the practical skills necessary to participate successfully in the electoral arena. Through a service component, the course provides experience working on a campaign and mobilizing others to participate in the electoral process.
Additional Information: Departmental Category: Invst Community Studies

INVS 2005 (2) Puksta Scholars Practicum
Integrates critical reflection and community-based experiences for undergraduates in the Puksta Scholars Program. This two-semester course will focus on the development of knowledge, attitudes and skills to productively engage the public realm. Examines topics includes ethical leadership, frameworks for social action, project design and participatory action research.
Repeatable: Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.
Grading Basis: Letter Grade
INVS 2919 (3) Renewing Democracy in Communities and Schools
Examines concepts of activism, citizenship, democracy, power, and diversity through classroom discussions and participation in a local K-12 school’s Public Achievement project. Through community-based partnerships, students will develop leadership skills; 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: EDUC 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: Invst Community Studies

INVS 2989 (3) Dialogue Across Difference
Provides practical facilitation training that equips students to be change makers in any setting. Students examine models of dialogic communication and theories of intergroup relations to understand how dialogue can build deeper understanding of self/others, reinvigorate democratic values and foster a more just society. Through hands-on experience participating in, observing, and leading dialogue, students learn to facilitate dialogue among their peers.
Grading Basis: Letter Grade
Additional Information: Arts Sci Gen Ed: Diversity-U.S. Perspective
Arts Sci Gen Ed: Distribution-Arts Humanities

INVS 3000 (3-4) Innovative Approaches to Contemporary Issues through Service Learning
Explores creative approaches for solving complex social and environmental issues, with a focus on peace and population. Students analyze the root causes of issues in theoretical and historical contexts, and develop their understanding of effective and innovative approaches to change. This course has a requirement of community service.
Recommended: Requisite upper-division status.
Additional Information: Arts Sci Core Curr: Contemporary Societies
Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Invst Community Studies

INVS 3041 (3) Self and Consciousness
Explores human development from a psychosocial perspective, focusing on the interplay between psychological patterns and social forms. Issues such as self-image and social consciousness are studied within the larger context of individual and collective forces leading to transformation.
Equivalent - Duplicate Degree Credit Not Granted: SOCY 3041
Requisites: Requires prerequisite courses of SOCY 1001 and SOCY 3001 or SOCY 3011 (all minimum grade D-).
Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Invst Community Studies

INVS 3100 (3) Social Justice, Leadership and Community Engagement Internships
Focuses on leadership theories and skills necessary for effectiveness in social justice settings. Students gain understanding of traditional and culturally diverse approaches to leadership and change. Community service required.
Equivalent - Duplicate Degree Credit Not Granted: ETHN 3201
Recommended: Prerequisite ETHN 2001.
Grading Basis: Letter Grade
Additional Information: Arts Sci Core Curr: Human Diversity
Departmental Category: Invst Community Studies

INVS 3302 (3) Facilitating Peaceful Community Change
Students gain knowledge and skills that enable them to become effective agents of community change. Focuses on understanding the processes of community building with a multicultural emphasis. Students are encouraged to apply their own life experiences and to examine themselves as potential change agents.
Equivalent - Duplicate Degree Credit Not Granted: WGST 3302
Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Invst Community Studies

INVS 3402 (3) Implementing Social and Environmental Change
Examines grassroots innovation as a means for creating comprehensive, solution-based strategies to address social and environmental problems. Students develop an understanding of the root causes of problems, identify how changes are initiated at the grassroots level, and learn the theory and practice of effective and responsible change efforts.
Additional Information: Departmental Category: Invst Community Studies

INVS 3671 (3) People of Color and Social Movements
People of color the world over are struggling for sovereignty, independence, civil and human rights, food security, decent wages and working conditions, healthy housing, and freedom from environmental racism and other forms of imperialism. Course analyzes and brings alive these struggles.
Equivalent - Duplicate Degree Credit Not Granted: ETHN 3671

INVS 3931 (3) The Community Leadership Internship, Part 1
Develops students’ competencies as community leaders working for a just and sustainable world. Under the supervision of an instructor and a community supervisor, students learn organizational leadership skills by serving as volunteer staff members at community-based organizations. Required requisite, admission into INVST CLP.
Repeatable: Repeatable for up to 6.00 total credit hours.
Additional Information: Departmental Category: Invst Community Studies

INVS 3932 (3) Community Leadership Internship, Part 2
Develops students’ competencies as community leaders working for a just and sustainable world. Under the supervision of an instructor and a community supervisor, students learn organizational leadership skills by serving as volunteer staff members at community-based organizations. Required requisite, membership in INVST CLP.
Repeatable: Repeatable for up to 6.00 total credit hours.
Requisites: Requires prerequisite course of INVS 3931 (minimum grade D-).
Additional Information: Departmental Category: Invst Community Studies

INVS 4302 (3) Critical Thinking in Development
Exposes students to current issues in the political economy of development. Subjects range from globalization, democratization and economic development. Specifically explores the international and domestic determinants of economic development with special reference to currency markets, foreign direct investment, trade, and democratization.
Equivalent - Duplicate Degree Credit Not Granted: PSCI 4732
Requisites: Requires prerequisite courses of PSCI 2012 or IAFS 1000 and ECON 2010 and 2020 (all minimum grade D). Recommended: Prerequisite one upper-division PSCI course.
Additional Information: Arts Sci Core Curr: Contemporary Societies
Departmental Category: Invst Community Studies
INVS 4402 (3) Nonviolent Social Movements
Explores theories of democracy and development in relation to movements for nonviolent social change. Focuses on means and ends, spirituality, leadership, decision-making, civil society, cooperative economics, ecology and decentralized powers.
**Requisites:** Restricted to students with 87-180 credits (Senior, Fifth Year Senior) Sociology (SOCY) or Political Science (PSCI) majors only.

**Additional Information:** Departmental Category: Invst Community Studies

INVS 4919 (1-2) Teaching Social Justice for Public Achievement
Participate as teaching assistants for the practicum course INVS 2919. Focusing on the issues of democratic education, diversity, social justice and social change, students learn how to foster undergraduates' skills as experiential educators.

**Repeatable:** Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.

**Requisites:** Requires a prerequisite course of INVS 2919 (minimum grade B).

INVS 4931 (1-6) Community Leadership in Action, Part 1
Develops students' expertise as community leaders. Under the supervision of an instructor and a community advisor, students design a community-based project.

**Repeatable:** Repeatable for up to 6.00 total credit hours.

**Requisites:** Requires prerequisite courses of INVS 3931 and INVS 3932 (all minimum grade D-).

**Recommended:** Prerequisite admission to INVST CLP.

**Additional Information:** Departmental Category: Invst Community Studies

INVS 4932 (1-6) Community Leadership in Action, Part 2
Develops students' expertise as community leaders working for a just and sustainable world. Under the supervision of an instructor and a community advisor, students learn organizational and leadership skills by designing, implementing and evaluating a community-based project. First-hand experience provides students with a deepened understanding of the complex issues facing humanity, and competence with solution-based strategies.

**Repeatable:** Repeatable for up to 6.00 total credit hours.

**Requisites:** Requires prerequisite course of INVS 4931 (minimum grade D-).

**Additional Information:** Departmental Category: Invst Community Studies

INVS 4999 (1-4) Teaching Social Justice
Students participate in a service-learning practicum under the supervision of a Community Studies instructor. They explore teaching strategies for implementing concrete educational goals. Focusing on the issues of social justice and social change, they learn how to encourage higher levels of creativity and analysis among students.

**Repeatable:** Repeatable for up to 9.00 total credit hours. Allows multiple enrollment in term.

**Additional Information:** Departmental Category: Invst Community Studies

LEAD

LEAD 1000 (3) Becoming a Leader
The foundation course will prepare students to exercise leadership in business, government and community organizations. Introduces leadership skills useful in a variety of settings including community and civic activities. Helps students to improve self awareness, understand multiple theories, recognize moral courage, build analytic and critical thinking skills and adapt leadership practices to different people and contexts.

**Equivalent - Duplicate Degree Credit Not Granted:** MGMT 3030

**Additional Information:** Departmental Category: CU Engage

LEAD 1001 (3) Becoming a Leader: Multicultural Leadership Scholars
Introduces students to the theories and practices of historical and contemporary leadership studies. Students will also examine both the moral and ethical dimensions of leadership and how cultural diversity, inclusivity and social justice apply to culturally competent leadership in the 21st century.

**Equivalent - Duplicate Degree Credit Not Granted:** LEAD 1000

**Requisites:** Requires corequisite course of EDUC 2910.

**Recommended:** restricted to students admitted into the Multicultural Leadership Scholars Program.

LEAD 1002 (3) Becoming a Leader: Leadership & Community Engagement
Introduces students to the theories and practices of historical and contemporary leadership studies. Serves as the foundation course for the Leadership and Community Engagement Major. Students examine the relationships between leadership and social identities, ethics, democratic engagement, diversity and inclusion, and social practices.

**Equivalent - Duplicate Degree Credit Not Granted:** LEAD 1000

**Requisites:** Restricted to Leadership/CommunityEngagement (LDCE) majors only.

LEAD 1571 (1) Topics in Leadership: Introduction to Research Methods
Participants will establish their understanding of research through critical exploration of research language, ethics, and approaches. The course introduces the language of research, ethical principles and challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches. Participants will use these theoretical underpinnings to begin to critically review literature relevant to their field or interests and determine how research findings are useful in forming their understanding of their work, social, local and global environment. Their work will culminate in a research project proposal submitted to CU's Undergraduate Research Opportunity Program.

**Requisites:** Requires prerequisite courses of LEAD 1001, LEAD 2410 and INVS 3100 (all minimum grade C-).

**Recommended:** Students in the Multicultural Leadership Scholars program.

**Grading Basis:** Letter Grade

LEAD 2410 (3) Dynamics of Power, Privilege, Oppression and Empowerment in Leadership
Examines the theoretical frameworks of social identity and power dynamic development (individual, group, institutional, cultural) and the resulting inequalities formed by systems of privilege and oppression - and their intersections - are manifested in society and how leadership is used to continue these systems or lead to empowerment and liberation.

**Requisites:** Requires prerequisite course of LEAD 1000 (minimum grade C).

**Additional Information:** Departmental Category: CU Engage

LEAD 4000 (4) Leadership in Context and Emerging Challenges: A Capstone
Integrates leadership topics and experiences students pursued through the Leadership Studies Minor. Using advanced critical thinking skills, the seminar requires students to evidence their knowledge, competencies and skills related to leadership theory and practice through examining contemporary leadership challenges. Further, the seminar directs students to justify decision-making processes, demonstrating their ability to synthesize prior knowledge to effect desirable, ethical outcomes.

**Requisites:** Requires a prerequisite course of LEAD 1000 or LDSP 1000 (minimum grade C-). Restricted to students with 57-180 credits (Juniors or Seniors).

**Grading Basis:** Letter Grade

**Additional Information:** Departmental Category: CU Engage
LEAD 4501 (3) Leadership Capstone 1
Apply skills and knowledge developed throughout the Leadership and Community Engagement Major to design and implement public action project. Critically examine local context, including organizations, agencies, firms, and movements. Identify partners and develop relationships based on reciprocity and mutually. Develop theory of change for project and design evaluation tools to measure impact.

Requisites: Requires corerequisite course of EDUC 4500. Restricted to Leadership and Community Engagement (LDCE) majors only. 
Recommended: Prerequisite EDUC 4150.
Grading Basis: Letter Grade