EDUCATION (EDUC)

Courses primarily for undergraduates:

EDUC 2010: Educational Technologies in the PK-6 Classroom
Credits: 3. Contact Hours: Lecture 2, Laboratory 2.
Overview of ways to use educational technologies to support instruction in PK-6 settings. Focus on pedagogical approaches that integrate technologies to support learning in the content areas. Laboratory experiences include development of activities to use web 2.0 tools, apps, multimedia, web page development, digital video and other technologies to facilitate learning and teaching. (Typically Offered: Fall, Spring)

EDUC 2020: Educational Technologies in the 7-12 Classroom
Credits: 3. Contact Hours: Lecture 2, Laboratory 2.
Overview of ways to use educational technologies to support instruction in 7-12 settings. Focus on pedagogical approaches that integrate technologies to support learning in the content areas. Laboratory experiences include development of activities to use tool software, multimedia, web page development, digital video and other technologies to facilitate learning and teaching. (Typically Offered: Fall, Spring)

EDUC 2040: Social Foundations of Education in the United States: Secondary
Credits: 3. Contact Hours: Lecture 3.
Introduction to the historical and contemporary landscape of schooling in the United States. Emphasis is placed on topics and tensions in the relationship between school and society (e.g. equity of access to education and competing purposes of education) and the implications of these topics and tensions for teaching and learning at the secondary level in public schools. For prospective teachers in an ISU Secondary Educator Preparation program; open to students who are considering teaching and/or work in education as a career path. (Typically Offered: Fall, Spring, Summer)

EDUC 2050: Social Foundations of Education in the United States: Early Childhood and Elementary Education
Credits: 3. Contact Hours: Lecture 3.
Introduction to the historical and contemporary landscape of schooling in the United States. Emphasis on topics and tensions in the relationship between school and society (e.g., equity of access to education and competing purposes of education) and the implications of these topics and tensions for teaching and learning in public schools. Student in K-12 education, or a non-education major should take EDUC 2040. (Typically Offered: Fall, Spring)

EDUC 2160: Learning Community Orientation to Teacher Education
Credits: 1. Contact Hours: Lecture 1.
Learning Community for Elementary Education majors to help with their transition to university life. Offers an overview of K-8 teacher certification in Iowa as well as degree and career planning. With the help of guest speakers and peer mentors students learn about elementary teaching as a profession and are introduced to a social justice orientation to teaching. All first semester freshman Elementary Education majors are required to register. Open to those interested in pursuing education. Offered on a satisfactory-fail basis only. (Typically Offered: Fall)

EDUC 2190: Orientation to Teacher Education: English, FCS, History, Math, Science and World Language Majors
Credits: 1. Contact Hours: Lecture 1.
Overview of English, mathematics, science, family and consumer sciences and history, and world language and cultures secondary education (grades 5-12), teacher licensure requirements in Iowa and other states. Program and career planning. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 2450: Landscape of Teaching
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 2050*; sophomore classification.*
Introduction to the landscape of teaching including the exploration of outside influences that impact schools, classroom structures (including classroom management systems) that help classrooms function efficiently and effectively, and instructional planning (basic lesson design and assessment) that addresses state standards and students' needs. Open to students majoring in Elementary Education or Early Childhood Education. (Typically Offered: Fall, Spring)

EDUC 2750: International Travel Study - Pre-departure Orientation
Credits: 1. Contact Hours: Lecture 1.
Repeatable, maximum of 1 credits.
Prereq: Instructor Permission for Course
Orientation to the international travel study, offered during the semester preceding the trip. (Typically Offered: Spring)

EDUC 2800A: Pre-Student Teaching Experience
Credits: 1-2. Contact Hours: Lecture 0.4.
Repeatable.
Prereq: Admitted to the Educator Preparation Program
Pre-Student teaching experience in school settings. Two, half days per week needed for school experience. Clinical Experience Level 2 or 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 2800B: Pre-Student Teaching Experience I: Educational Technologies
Credits: 1.
Prereq: EDUC 2010 *or* EDUC 2020 *or EDUC 2030*
Pre-Student teaching experience with technologies in various educational settings with K-12 technology leaders. 2 1/2-hour blocks of time needed. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 2800I: Pre-Student Teaching Experience I: Mild/Moderate Disabilities
Credits: 1. Repeatable.
Pre-Student teaching experience in mild/moderate disabilities in school settings. One, half-day per week needed for school experience. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Spring)

EDUC 2800J: Pre-Student Teaching Experience I: Mathematics Clinic
Credits: 1. Repeatable.
Early field experience where students explore and develop an understanding of research-based instructional practices that could be implemented with middle level students to teach mathematical concepts. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Spring)

EDUC 2800K: Pre-Student Teaching Experience I: Music
(Cross-listed with MUSIC 2800K).
Credits: 0.5. Repeatable.
Pre-student teaching experience in music in school settings. Permission of Music coordinator required prior to enrollment. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Spring)

EDUC 2800L: Pre-Student Teaching Experience I: Secondary Education
Credits: 0.5. Repeatable.
Pre-student teaching experience for secondary education students in school settings. One, half-day per week needed for school experience. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 2800N: Pre-Student Teaching Experience I: Elementary Education
Credits: 0.5-1. Contact Hours: Laboratory 1.5, Lecture 0.5.
Repeatable.
Pre-student teaching experience for students in school settings. One, half-day per week needed for school experience. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Spring)

EDUC 2800O: Pre-Student Teaching Experience 1: Art Education
Credits: 1. Repeatable.
Pre-student teaching experience in art education in school settings. 2 1/2-hour blocks of time needed. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 2800S: Pre-Student Teaching Experience I: English as a Second Language (ESL)
Credits: 1. Repeatable, maximum of 1 credits.
Prereq: Admitted to the Educator Preparation Program
Pre-student teaching experience in English as a Second Language. One, half-day per week needed for school experience. Graduation Restrictions: EDUC 2800 may be taken more than once for credit toward graduation. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 2800T: Pre-Student Teaching Experience I: Tutoring
Credits: 1. Repeatable.
Pre-student teaching experience tutoring in a school setting focused on mathematics, literacy, and/or other content areas. Clinical Experience Level 1. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 2900: Independent Study
Credits: 1-3. Repeatable.
Prereq: 6 credits in Education, permission of instructor
Independent study, under faculty supervision, of a topic in the field of education. (Typically Offered: Fall, Spring, Summer)

EDUC 3020: Principles and Practices of Learning with Technology
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 2010 *or* EDUC 2020 *or EDUC 2030*
Advanced integration of learning technologies into PK-12 educational contexts. Examine current trends in using learning technologies with PK-12 students; explore current applications used in formal and informal educational settings; and discuss issues focused on technology use in education. Required for Learning Technologies Minor. (Typically Offered: Spring)

EDUC 3150: Transfer Orientation
Credits: 1. Contact Hours: Lecture 1.
Offers an overview of Elementary Education requirements, university procedures, K-8 certification in Iowa as well as degree and career planning. With the help of guest speakers and peer mentors, students learn about elementary teaching as a profession and are introduced to a social justice orientation to teaching. Learning community required of all transfer students and change of major students pursuing Elementary Education. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 3320: Educational Psychology of Early Childhood and Elementary Education
Credits: 3. Contact Hours: Lecture 3.
Prereq: PSYCH 2300 *or* HDFS 1020*, major in Early Childhood Education or Elementary Education*
Psychological theories relevant to student development, learning, and motivation. Review of assessment principles and practices. Implications of theory for teaching children and for assessing learning in educational settings with primary and intermediate grade children. (Typically Offered: Fall, Spring)

EDUC 3330: Educational Psychology
(Cross-listed with PSYCH 3330).
Credits: 3. Contact Hours: Lecture 3.
Prereq: PSYCH 2300 *or* HDFS 1020
Psychological theories relevant to student development, learning, and motivation. Review of assessment principles and practices. Implications of theory for teaching children and for assessing learning in K-12 educational settings, with an emphasis on grades 5 - 12. (Typically Offered: Fall, Spring)

EDUC 3470: Nature of Science
(Dual-listed with EDUC 5470).
Credits: 3. Contact Hours: Lecture 3.
The history, philosophy, and sociology of science, how scientific knowledge differs from other forms of knowledge, and the relationship of the Nature of Science to science teaching and learning.

EDUC 3550X: Teaching Multilingual Learners
Credits: 3. Contact Hours: Lecture 3.
Repeatable, maximum of 2 times.
Focus on in teaching in schools and/or community agencies serving multilingual populations. Topics include: theories of first and second language acquisition, translanguaging, language policies and laws, strategies for teaching academic content in the mainstream classroom, creating classroom/school cultures that invite all students into learning, and the role of advocacy and professional collaboration in educational equity & excellence. (Typically Offered: Spring)

EDUC 3690X: Dilemmas in Education
Credits: 3. Contact Hours: Lecture 3.
Exploration of dilemmas in education that revolve around issues of the societal value placed on P-20 education, as the value placed on the students and professionals who work in the field, and the educational challenges facing society and individuals. Analysis, critique, and discussions will integrate current topics, historical context, and social, political, and cultural impacts within P-20 education systems. (Typically Offered: Fall, Spring)

EDUC 3700: Toying with Technology
Credits: 3.
Prereq: EDUC 2010 *or EDUC 2030*
Integration of learning technologies into PK-12 STEM contexts with a focus on engineering design and computational thinking. Examine current trends and explore how technology can be used to design creative and innovative hands-on experiences that promote computational thinking and problem-solving skills across STEM-related educational contexts. (Typically Offered: Fall, Spring)

EDUC 3770: Teaching Literacy in the Primary Grades
Credits: 4. Contact Hours: Lecture 4.
Prereq: Admitted to the Educator Preparation Program, EDUC 2450*,* SPED 2500*,* HDFS 2400
Theories, teaching strategies, and instructional materials pertinent to teaching reading, writing, listening, and speaking to children in kindergarten through third grade. (Typically Offered: Fall, Spring, Summer)

EDUC 3780: Teaching Literacy in the Intermediate Grades
Credits: 4. Contact Hours: Lecture 4.
Prereq: EDUC 3770*; Admitted into the Educator Preparation Program*
Theories and processes of literacy. Application through reading and writing across the curriculum, integration of language arts, literature-based instruction, and metacognitive strategies. (Typically Offered: Fall, Spring, Summer)

EDUC 3800A: Pre-Student Teaching Experience II: Core Experience
Credits: 1-2. Contact Hours: Lecture 2, Laboratory 2.
Prereq: Admitted to the Educator Preparation Program
Pre-Student teaching experience in school setting. Two, half-days per week needed for school experience. Clinical Experience Level 2. (Typically Offered: Fall, Spring)

EDUC 3800B: Pre-Student Teaching Experience II: Physical Science, Chemistry or Physics
Credits: 1-2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Pre-student teaching experience in physical science, chemistry, or physics. Two, half-days per week needed for school experience. Clinical Experience Level 2. Graduation Restriction: EDUC 3800 may be taken more than once for credit toward graduation. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 3800D: Pre-Student Teaching Experience II: Biological Sciences
Credits: 1-2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Pre-student teaching experience in physical science, chemistry, or physics. Two, half-days per week needed for school experience. Clinical Experience Level 2. Graduation Restriction: EDUC 3800 may be taken more than once for credit toward graduation. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 3800J: Pre-Student Teaching Experience II: Earth Sciences
Credits: 1-2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Pre-student teaching experience in earth science. Two, half-days per week needed for school experience. Clinical Experience Level 2. Graduation Restriction: EDUC 3800 may be taken more than once for credit toward graduation. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 3800K: Pre-Student Teaching Experience II: Music
(Cross-listed with MUSIC 3800K).
Credits: 1-2. Contact Hours: Lecture 1, Studio 8.
Prereq: Admitted to the Educator Preparation Program
Participation in a K-12 school setting. Permission of Music coordinator required prior to enrollment. Clinical Experience Level 2. Offered on a satisfactory-fail basis only.

EDUC 3800S: Pre-Student Teaching Experience II: English as a Second Language (ESL)
Credits: 1. Repeatable, maximum of 1 credits.
Prereq: Admitted to the Educator Preparation Program
Pre-student teaching experience in English as a Second Language. One, half-day per week needed for school experience. Clinical Experience Level 2. Graduation Restriction: EDUC 3800 may be taken more than once for credit toward graduation. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 3800V: Pre-Student Teaching Experience in FCS Education: Practicum in FCS Labs
(Cross-listed with FCEDS 3800V).
Credits: 1-2. Contact Hours: Laboratory 2.
Repeatable.
Prereq: FCEDS 3060 *and admission to Educator Preparation program*
Laboratory experience in foods, hospitality management, culinary, prostart, textiles, fashion design, housing, and human development related to family and consumer sciences courses taught at the secondary level. Planning, implementing, managing, and assessing laboratory lessons in family and consumer sciences. Includes 24 hours practicum: unsupervised. 1/2 day of time needed in schedule. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 3950: Teaching Disciplinary Literacy
(Dual-listed with EDUC 5950).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 2040*; junior classification*
Analysis and application of strategies to enhance students' disciplinary literacy development in middle and secondary school setting. Research paper related to a course topic for EDUC 5950. (Typically Offered: Fall, Spring, Summer)

EDUC 4050: Social Justice Education and Teaching: Early Childhood and Elementary
Credits: 3. Contact Hours: Lecture 3.
Prereq: Admitted to the Educator Preparation Program
Awareness and nature of social justice in relation to the educational system; deep exploration of justice in education at the levels of self, teaching, and systems; multicultural concepts and theories; awareness of context of cultural groups -their history, perspective, needs, and contributions; problems and issues regarding prejudice, discrimination, and oppression based on race, ethnicity, socioeconomic class, gender, sexual identity and language in the school environment. Special attention is given to enacting culturally relevant teaching in grades PK through 6, along with curriculum transformation and social action in those grades. Restricted to those enrolled in Early Childhood and Elementary Education Programs. Meets U.S. Diversity Requirement. (Typically Offered: Fall, Spring)

EDUC 4060: Social Justice Education and Teaching: Secondary
Credits: 3. Contact Hours: Lecture 3.
Awareness and nature of social justice in relation to the educational system; need for cultural competence; multicultural concepts and theories; awareness of context of cultural groups - their history, perspective, needs, and contributions; problems and issues regarding prejudice, and discrimination based on race, ethnicity, socioeconomic class, gender, sexual identity and language in the school environment. Special attention to culturally relevant teaching in grades 7 through 12, along with curriculum transformation and social action in those grades. Meets U.S. Diversity Requirement. (Typically Offered: Fall, Spring, Summer)

EDUC 4070: Online Education in Pre-K-12 Classrooms: Hybrid, Virtual, and Blended Approaches
Credits: 3. Contact Hours: Lecture 2, Laboratory 2.
Prereq: EDUC 2010 *or EDUC 2030*
Preparing educators to develop and sustain learning environments where their students are physically separated from them. Developing flexible and distance learning experiences where Pre- K-12 students expand their knowledge and improve their skills in curricular areas outside of the traditional classroom. Required for the Learning Technologies Minor. (Typically Offered: Fall, Summer)

EDUC 4160A: Supervised Student Teaching - Elementary: Primary grades (K-3)
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Supervised teaching experience in the elementary grades. (Typically Offered: Fall, Spring)

EDUC 4160B: Supervised Student Teaching - Elementary: Intermediate grades (3-6)
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Supervised teaching experience in the elementary grades. (Typically Offered: Fall, Spring)

EDUC 4160D: Supervised Student Teaching - Elementary: International Student Teaching - Primary Grades
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Supervised teaching experience in the elementary grades. (Typically Offered: Fall, Spring)

EDUC 4160E: Supervised Student Teaching - Elementary: International Student Teaching - Intermediate Grades
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Supervised teaching experience in the elementary grades. (Typically Offered: Fall, Spring)

EDUC 4160Z: Supervised Student Teaching - Elementary: English as a Second Language
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Supervised teaching experience in the elementary grades. (Typically Offered: Fall, Spring)

EDUC 4170A: Student Teaching: Social Studies-Middle School
(Dual-listed with EDUC 5170A).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 4170B: Student Teaching: Physical Sciences
(Dual-listed with EDUC 5170B).
Credits: 1-30. Repeatable.
Evaluation of instruction, lesson planning, and teaching in physical sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 4170C: Student Teaching: Mathematics
(Dual-listed with EDUC 5170C).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in mathematics grades 5-12. (Typically Offered: Fall, Spring)

EDUC 4170D: Student Teaching: Biological Sciences
(Dual-listed with EDUC 5170D).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in biological sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 4170E: Student Teaching: English and Literature
(Cross-listed with ENGL 4170E).
Credits: 1-30. Repeatable.
Prereq: ENGL 4940*, admission to the Educator Preparation Program, approval of coordinator the semester prior to student teaching*
Full-time teaching in secondary English: long term and unit planning, lesson planning, classroom teaching practice in English language arts. (Typically Offered: Fall, Spring)

EDUC 4170F: Student Teaching: Speech
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in speech.

EDUC 4170G: Student Teaching: World Language
(Dual-listed with EDUC 5170G/ WLC 5170G). (Cross-listed with WLC 4170G).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in world languages, secondary grades. (Typically Offered: Fall, Spring)

EDUC 4170J: Student Teaching: Earth Sciences
(Dual-listed with EDUC 5170J).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in earth sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 4170M: Student Teaching: Science - Basic
(Dual-listed with EDUC 5170M).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in basic sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 4170N: Student Teaching: International
(Dual-listed with EDUC 5170N).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 4170P: Student Teaching: Social Studies-High School
(Dual-listed with EDUC 5170P).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 4170R: Student Teaching: Music-Elementary
(Dual-listed with EDUC 5170R/ MUSIC 5170R). (Cross-listed with MUSIC 4170R).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 4170S: Student Teaching: Music-Secondary
(Dual-listed with EDUC 5170S/ MUSIC 5170S). (Cross-listed with MUSIC 4170S).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 4170Z: Supervised Student Teaching- Secondary: English as Second Language
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in English as a Second Language grades 7-12. (Typically Offered: Fall, Spring)

EDUC 4180: Secondary Science Methods I
(Dual-listed with EDUC 5180).
Credits: 3. Contact Hours: Lecture 3.
Develop an understanding of research-based practices for effective and equitable science teaching that align with state and national standards. Emphasis is on the character and role of science inquiry, teaching behaviors and strategies, and actively engaging students in self-evaluation and evidence-based inquiry learning experiences. (Typically Offered: Fall)

EDUC 4190: Secondary Science Methods II
(Dual-listed with EDUC 5190).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 4180*; (concurrent enrollment in* EDUC 4800B *OR* EDUC 4800D*, OR* EDUC 4800J*)*
Advancing a research-based framework for effective and equitable science teaching rooted in the idea that students need opportunities to make sense of phenomena, and grapple with scientific ideas using authentic science and engineering practices while observing science safety. (Typically Offered: Spring)

EDUC 4200: Bilingualism & The Education of Latinx Youth
(Dual-listed with EDUC 5200). (Cross-listed with USLS 4200).
Credits: 3. Contact Hours: Lecture 3.
Introduction to research on bilingualism and examination of the social, historical, and political contexts of Spanish/English education in the U.S. Attention to policy environment, school program structure, mode of classroom instruction, family and community context, and attainment of bilingualism and biculturalism for Latinx youth. Meets U.S. Diversity Requirement. (Typically Offered: Fall)

EDUC 4220: Teaching and Learning Iowa History
(Dual-listed with EDUC 5220).
Credits: 3. Contact Hours: Lecture 3.
Multicultural and social justice focus on Iowa history; different theme each summer. Effective pedagogical and assessment strategies for integrating these themes into K-12 curriculum. (Typically Offered: Summer)

EDUC 4260: Principles of Secondary Education
(Dual-listed with EDUC 5260).
Credits: 3. Contact Hours: Lecture 3.
Introduction to secondary education teaching strategies, lesson planning that provides equitable learning opportunities for all students, classroom management, legal aspects of schools, professional and ethical issues, current educational issues, professional learning communities, and social-justice oriented teaching. (Typically Offered: Fall, Spring, Summer)

EDUC 4330: Teaching Social Studies in the Primary Grades
Credits: 2. Contact Hours: Lecture 2.
Emphasis is placed on providing equity and justice-oriented social studies learning experiences (e.g. curriculum content, instructional strategies, and assessment) for primary grade children. (Typically Offered: Fall, Spring)

EDUC 4380: Teaching Mathematics in the Primary Grades
Credits: 2. Contact Hours: Lecture 2.
*Prereq: Concurrent enrollment in (*EDUC 3770*,* EDUC 4680F*,* EDUC 4680G*),* MATH 1950 *(minimum grade of C-),* MATH 1960 *(minimum grade of C-); Admitted to the Educator Preparation Program.*
Develop an understanding of effective mathematics teaching practices situated in equitable pedagogies that support primary students' mathematical understanding. (Typically Offered: Fall, Spring)

EDUC 4390: Teaching Science in the Primary Grades
Credits: 2. Contact Hours: Lecture 2.
Development and application of effective methods of science teaching that align with standards and best practices. Emphasis is on research-based, equitable teaching practices that provide appropriate science learning experiences in the early elementary grades. (Typically Offered: Fall, Spring)

EDUC 4430: The Teaching of Social Studies
Credits: 3. Contact Hours: Lecture 3.
Prereq: Admitted to the Educator Preparation Program
Emphasis is placed on providing equity and justice-oriented social studies learning experiences (e.g. curriculum content, instructional strategies, and assessment) for primary and intermediate grade children. (Typically Offered: Fall, Spring, Summer)

EDUC 4480: Teaching Children Mathematics
Credits: 3. Contact Hours: Lecture 3.
Prereq: MATH 1950 *(minimum grade of C-),* MATH 1960 *(minimum grade of C-); Admitted to the Educator Preparation Program*
Develop an understanding of effective mathematics teaching practices situated in equitable pedagogies that support elementary students' mathematical understanding. (Typically Offered: Fall, Spring, Summer)

EDUC 4490: The Teaching of Science
Credits: 3. Contact Hours: Lecture 3.
Development and application of effective methods of science teaching that align with standards and best practices. Emphasis is on research-based, equitable teaching practices that provide appropriate science learning experiences in the elementary grades. (Typically Offered: Fall, Spring, Summer)

EDUC 4500: Ethnicity and Learning
(Dual-listed with EDUC 5500).
Credits: 3. Contact Hours: Lecture 3.
*Prereq: (*EDUC 3320 *or* EDUC 3330*),* EDUC 4060
Examination of cultural relevance in education. Development and application of strategies and techniques for implementing multicultural goals and multiethnic perspectives in PreK-12 school classroom settings. Offered even-numbered years. (Typically Offered: Spring)

EDUC 4520: Assessment for Literacy and Learning
(Dual-listed with EDUC 5520).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 3780*. Concurrent enrollment in* EDUC 4880*.*
Identification, analysis and correction of reading problems in five areas: print knowledge, integration of print knowledge, oral reading fluency, vocabulary, and comprehension. (Typically Offered: Fall, Spring, Summer)

EDUC 4540: Emerging Topics in Educational Technologies
Credits: 1. Contact Hours: Lecture 1.
Repeatable, maximum of 6 credits.
Prereq: EDUC 2010 *or EDUC 2030*
Development and application of emerging technology topics related to digital learning. Series of 1 credit on-line learning modules on current technology being used in education and topics being addressed. These modules extend learning opportunities from other courses and experiences. Required for Learning Technologies Minor. (Typically Offered: Fall, Spring, Summer)

EDUC 4560: Integrating Technology into Literacy
(Dual-listed with EDUC 5560).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 2010 *or EDUC 2030;* EDUC 3770
Methods and strategies used to integrate technology into K-8 literacy. Examination of the use and evaluation of technology appropriate for elementary literacy classrooms. (Typically Offered: Fall, Spring)

EDUC 4590: Critical Approaches to Teaching Children's and Adolescent Literature
(Dual-listed with EDUC 5590).
Credits: 3. Contact Hours: Lecture 3.
Research and discussion of issues surrounding the classroom use of literature for children and young adults including censorship, diversity, selection, critical literacy and the influences of technology. Meets U.S. Diversity Requirement. (Typically Offered: Fall, Spring, Summer)

EDUC 4680A: Pre-Student Teaching Experience III: Primary Grades, Reading and Language Arts
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised K-3 elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring, Summer)

EDUC 4680B: Pre-Student Teaching Experience III: Intermediate Grades, Reading and Language Arts
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised 3-6 elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring, Summer)

EDUC 4680C: Pre-Student Teaching Experience III: Primary Grades, Mathematics
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods, and instructional experiences with children in a supervised K-3 elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring, Summer)

EDUC 4680D: Pre-Student Teaching Experience III: Intermediate Grades, Science
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised 3-6 elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring, Summer)

EDUC 4680F: Pre-Student Teaching Experience III: Primary Grades Inclusive, Literacy
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised K-3 inclusive elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 4680G: Pre-Student Teaching Experience III: Primary Grades Inclusive, Mathematics
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised K-3 inclusive elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 4680I: Pre-Student Teaching Experience III: Primary Grades Inclusive, Science
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised K-3 inclusive elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 4680R: Pre-Student Teaching Experience II: Intermediate Grades, Reading Endorsement
Credits: 1.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised 3-6 elementary classroom while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring, Summer)

EDUC 4680T: Pre-Student Teaching Experience III: Elementary
Credits: 2. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Application of current methods and instructional experiences with children in a supervised elementary classroom outside of Iowa while engaged in other elementary methods courses. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 4750: International Travel Study in Education
(Dual-listed with EDUC 5750).
Credits: 1-6. Repeatable, maximum of 6 credits.
Prereq: EDUC 2750*; Permission of instructor*
Seminar-based course for undergraduate and graduate students to develop a better understanding around global issues related to teaching, learning, curriculum, and educational policy through international travel study. 1 to 6 week duration involving study in a country other than the US. (Typically Offered: Summer)

EDUC 4800A: Pre-Student Teaching Experience III: History/Social Sciences
(Cross-listed with HIST 4800A).
Credits: 2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation in a 5-12 school setting. Permission of History/Social Sciences coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical Supervision Level 3. (Typically Offered: Fall)

EDUC 4800B: Pre-Student Teaching Experience III: Physical Science, Chemistry, or Physics
Credits: 2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation in a 5-12 school setting. Permission of program coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical Supervision Level 3. (Typically Offered: Fall, Spring)

EDUC 4800C: Pre-Student Teaching Experience III: Mathematics
Credits: 0.5-2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation mathematics in a 5-12 school setting. Permission of mathematics coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical Experience Level 3. (Typically Offered: Fall, Spring)

EDUC 4800D: Pre-Student Teaching Experience III: Biological Sciences
Credits: 2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation in a 5-12 school setting. Permission of program coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical Supervision Level 3. (Typically Offered: Fall, Spring)

EDUC 4800E: Pre-Student Teaching Experience III: English
Credits: 1-2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation in a 5-12 school setting. Permission of English coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical Experience Level 3. (Typically Offered: Fall, Spring)

EDUC 4800G: Pre-Student Teaching Experience III: World Languages and Cultures
Credits: 1-2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation in a 5-12 school setting. Permission of World Languages and Cultures coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical Experience Level 3. (Typically Offered: Fall)

EDUC 4800J: Pre-Student Teaching Experience III: Earth Science
Credits: 2. Repeatable, maximum of 2 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation in a 5-12 school setting. Permission of program coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical Supervision Level 3. (Typically Offered: Fall, Spring)

EDUC 4800K: Pre-Student Teaching Experience III: Music
(Cross-listed with MUSIC 4800K).
Credits: 1-2. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Participation in a K-12 school setting. Permission of Music coordinator required prior to enrollment. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 4800S: Pre-Student Teaching Experience III: English as a Second Language (ESL)
Credits: 2. Repeatable, maximum of 2 credits.
Prereq: EDUC 3800S*;* ENGL 2190 *or* LING 2190*;* ENGL 2200 *or* LING 2200*;*
Admitted to Educator Preparation Program
Supervised participation in a school setting. Permission of ESL area coordinator required prior to enrollment. Two, half-days per week needed for school experience. Clinical experience level 3. Offered on a satisfactory-fail basis only.

EDUC 4800T: Pre-Student Teaching Experience III: Secondary Education
Credits: 2. Repeatable, maximum of 4 credits.
Prereq: Admitted to the Educator Preparation Program
Supervised participation in a 5-12 school setting outside of Iowa. Permission of content program coordinator required prior to enrollment. Clinical Experience Level 3. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 4800V: Pre-Student Teaching Experience in FCS Education: Practicum in Diverse Settings
(Cross-listed with FCEDS 4800V).
Credits: 2. Contact Hours: Laboratory 4.
Repeatable.
Laboratory experience in foods, textiles, and human development related to family and consumer sciences exploratory programs. Planning, implementing, managing and assessing laboratory lessons in family and consumer sciences. Includes 48 hours practicum and supervised individual teaching. 1/2 day of time needed in schedule. Offered on a satisfactory-fail basis only. (Typically Offered: Fall, Spring)

EDUC 4810: Philosophy of Education
(Dual-listed with EDUC 5810).
Credits: 3. Contact Hours: Lecture 3.
Introduction to philosophy of education. Emphasis is placed on historical and contemporary debates about the nature and purpose(s) of education in a just society. Possible topics include questions such as: When is one justified in claiming to know or to have learned? Who is morally responsible for a learner's education or schooling? What is a just distribution of educational opportunities? How might one teach philosophically? Offered odd-numbered years. (Typically Offered: Fall)

EDUC 4860: Methods in Elementary School World Language Instruction
(Cross-listed with WLC 4860/ LING 4860).
Credits: 3. Contact Hours: Lecture 3.
Prereq: 25 credits in a World Language
Planning, implementation, and assessment of standards-based, student-centered, and thematic instruction in the elementary (K-8) classroom. Special emphasis on K-8 students' communicative skills, cultural knowledge, and content learning. (Typically Offered: Fall)

EDUC 4870: Methods in Secondary School World Language Instruction
(Cross-listed with WLC 4870/ LING 4870).
Credits: 3. Contact Hours: Lecture 3.
Prereq: 25 credits in a world language; Department Permission
Theories and principles of contemporary world language learning and teaching. Special emphasis on designing instruction and assessments for active learning. Admission to teacher education required. (Typically Offered: Fall)

EDUC 4880: Supervised Tutoring in Reading
(Dual-listed with EDUC 5880).
Credits: 3. Contact Hours: Lecture 2.
Prereq: EDUC 3780*; concurrent enrollment in* EDUC 4520
Using formal and informal diagnostic procedures to plan and implement individualized reading instruction. Field experience in tutoring and a related research project. (Typically Offered: Fall, Spring, Summer)

EDUC 4900A: Independent Study: Education
(Cross-listed with MUSIC 4900A).
Credits: 1-30. Repeatable.
Prereq: 12 credits in MUSIC; Department Permission
Music. (Typically Offered: Fall, Spring, Summer)

EDUC 4900C: Independent Study: Curriculum Construction
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900D: Independent Study: Principles of Education
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900E: Independent Study: Methods of Teaching
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900F: Independent Study: Educational Psychology
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900G: Independent Study: Digital Learning
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900H: Independent Study: Honors
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900J: Independent Study: Social and Cultural Studies
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900K: Independent Study: History/Social Sciences
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900L: Independent Study: Literacy Education
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900M: Independent Study: Mathematics Education
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900N: Independent Study: World Language
Credits: 1-3. Repeatable.
(Typically Offered: Fall, Spring, Summer)

EDUC 4900O: Independent Study: Foundations of Education
Credits: 1-3. Repeatable.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 4900P: Independent Study: Science Education
Credits: 1-3.
Prereq: Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 4950B: Independent Study: Teaching Speech
(Cross-listed with SPCM 4950B).
Credits: 3. Contact Hours: Lecture 3.
Problems, methods, and materials related to teaching speech, theatre, and media in secondary schools. (Typically Offered: Fall)

EDUC 4970: Teaching Secondary School Mathematics
(Cross-listed with MATH 4970).
Credits: 3. Contact Hours: Lecture 3.
Develop an understanding of instructional planning, lesson implementation, and assessment in grades 5-12 mathematics, with a focus on reform-based mathematics, equity, and conceptual understanding. (Typically Offered: Fall)

EDUC 4980: Methods of Teaching History/Social Sciences
(Dual-listed with HIST 5980). (Cross-listed with HIST 4980).
Credits: 3. Contact Hours: Lecture 3.
Theories and processes of teaching and learning secondary history/social sciences. Emphasis on development and enactment of current methods, assessments, and curriculum materials for providing appropriate learning experiences. (Typically Offered: Fall, Spring)

Courses primarily for graduate students, open to qualified undergraduates:

EDUC 5010: Foundations of Educational Technology
Credits: 3. Contact Hours: Lecture 3.
Educational philosophies and theories of teaching, learning, and technologies. Understanding of how people learn with, and through, educational technology, in many settings. Overview of significant topics in educational technology. Major learning theories, including recent debates in how educators conceive of learning; teaching and learning with technology; new literacies practices; and critical theory. (Typically Offered: Fall, Summer)

EDUC 5020: Teaching Mathematics to English Language Learners
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 4480 *or* EDUC 4970 *or* EDUC 5970 *or permission of instructor*
Understanding the needs of various English language learners, learn to use ELLs' language and culture as a resource in mathematics classrooms, and implement research-based instructional strategies that are effective to teach mathematics for ELLs. For pre-service/in-service teachers and others who will work or currently works with English language learners (ELLs). (Typically Offered: Spring, Summer)

EDUC 5030: Designing Effective Learning Environments
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 5010
Application of theories and models of instructional design. Design decision-making based on the analysis of performance problems and instructional inputs. Practical experience with the design and development of instruction and evaluation principles. (Typically Offered: Fall)

EDUC 5040: Evaluating Technology-based Learning Environments
(Cross-listed with HCI 5040).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 5010
Principles and procedures to plan, design, and conduct effective evaluation studies (formative, summative, usability) in different settings are studied. Opportunities to engage in real or simulated evaluation projects of substantial scope are provided. Create evaluation instruments, develop methods with which to evaluate a product or program, conduct try-outs or usability sessions, analyze the data, report the findings, and recommendations are some of the course activities. (Typically Offered: Spring)

EDUC 5050: Using Technology in Learning and Teaching
Credits: 3. Contact Hours: Lecture 3.
Teaching and learning using educational technology. Selection and evaluation of digital tools for teaching and learning. Research on instructional technology. Tool software. Trends in computer-based instruction. (Typically Offered: Fall, Spring)

EDUC 5060: Social Justice Education and Teaching: Advanced
Credits: 3. Contact Hours: Lecture 3.
Prereq: 6 graduate credits in EDUC
Engage with justice-oriented multicultural frameworks for transformative education and education research, understand equity in education in historical and contemporary contexts, develop principled approaches to critical self-reflection, interpret educational situations in justice-oriented ways, and counter inequities in education through curriculum, pedagogy, and research. (Typically Offered: Fall, Summer)

EDUC 5080: Algebra in the K-12 Classrooms
Credits: 3. Contact Hours: Lecture 3.
Prereq: 6 credits MATH AND (credit or concurrent enrollment in EDUC 4480 *or* EDUC 4970 *or* EDUC 5970*)*
Focus on Algebraic reasoning, concepts, and associated procedures in K-12 classrooms, especially middle level. Using algebra and algebraic reasoning to solve a real-life problem. Attention is given to algebraic habits of mind, generalization, representation, and transition from arithmetic algorithms to algebra. (Typically Offered: Fall)

EDUC 5090: Geometry in the K-12 Classrooms
Credits: 3. Contact Hours: Lecture 3.
Prereq: 6 credits MATH AND (credit or concurrent enrollment in EDUC 4480 *or* EDUC 4970 *or* EDUC 5970*)*
Explore geometry and measurement through research-based pedagogies in K-12 classrooms. An investigative approach involving problem solving, reasoning and proof, connections, and communication are emphasized. (Typically Offered: Fall)

EDUC 5100: Foundations of Game-based Learning
(Cross-listed with HCI 5100).
Credits: 3. Contact Hours: Lecture 3.
Prereq: 12 graduate credits
Theories, principles and best practices of utilizing games in educational environments. Topics include the theoretical foundations of learning games and game play, identity development in online environments, and assessment of learning in and out of games. (Typically Offered: Spring)

EDUC 5110: Technology Diffusion, Leadership, and Change
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 5010 *and* EDUC 5050 *and Graduate Classification*
Principles and practices of technology diffusion, leadership and school change. Coursework focuses on technology diffusion broadly and implications on educational contexts. Leadership frameworks and strategies for professional development and organizational change are examined, as well as new literacy practices, critical theory, and current debates in the field. (Typically Offered: Spring)

EDUC 5120: Research Trends in Educational Technology
Credits: 3. Contact Hours: Lecture 3.
Critical review and synthesis of current research trends in educational technology. Designed for students to synthesize knowledge of issues in research, and methods of conducting research in practice. (Typically Offered: Fall)

EDUC 5130: Mathematical Problem Solving in K-12 Classrooms
Credits: 3. Contact Hours: Lecture 3.
Prereq: 6 credits MATH AND (credit or concurrent enrollment in EDUC 4480 *or* EDUC 4970 *or* EDUC 5970*)*
Develop problem solving strategies across all strands of mathematics. Issues surrounding the appropriate role of problem solving in K-12 mathematics classrooms are discussed, including distinctions among teaching 'about,' 'for,' and 'through' problem solving. Emphasis on task modification and mathematical modeling. (Typically Offered: Spring)

EDUC 5140: Introduction to Science Teaching and Learning
Credits: 1-4. Contact Hours: Lecture 1, Laboratory 2.
Introduction to critical issues facing science education, science education goals reflecting contemporary purposes of schooling, and how people learn science. (Typically Offered: Summer)

EDUC 5150: Action Research in Education
Credits: 3. Contact Hours: Lecture 3.
Methods of conducting and communicating action research focused on improving educational practices. Develop first cycle of action plan with purpose of investigating an educational setting. Learn to identify problems to investigate, select appropriate research methods, collect and analyze data, and draw conclusions from research. (Typically Offered: Spring)

EDUC 5170A: Student Teaching: Social Studies-Middle School
(Dual-listed with EDUC 4170A).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 5170B: Student Teaching: Physical Sciences
(Dual-listed with EDUC 4170B).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in physical sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 5170C: Student Teaching: Mathematics
(Dual-listed with EDUC 4170C).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in mathematics grades 5-12. (Typically Offered: Fall, Spring)

EDUC 5170D: Student Teaching: Biological Sciences
(Dual-listed with EDUC 4170D).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in biological sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 5170E: Student Teaching: English
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Seminar-based course for undergraduate and graduate students to develop a better understanding around global issues related to teaching, learning, curriculum, and educational policy through international travel study. 1 to 6 week duration involving study in a country other than the US.

EDUC 5170G: Student Teaching: World Language
(Dual-listed with EDUC 4170G/ WLC 4170G). (Cross-listed with WLC 5170G).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in world languages, secondary grades. (Typically Offered: Fall, Spring)

EDUC 5170J: Student Teaching: Earth Sciences
(Dual-listed with EDUC 4170J).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in earth sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 5170M: Student Teaching: Science - Basic
(Dual-listed with EDUC 4170M).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in basic sciences grades 5-12. (Typically Offered: Fall, Spring)

EDUC 5170N: Student Teaching: International
(Dual-listed with EDUC 4170N).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 5170P: Student Teaching: Social Studies-High School
(Dual-listed with EDUC 4170P).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 5170R: Student Teaching: Music-Elementary
(Dual-listed with EDUC 4170R/ MUSIC 4170R). (Cross-listed with MUSIC 5170R).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 5170S: Student Teaching: Music-Secondary
(Dual-listed with EDUC 4170S/ MUSIC 4170S). (Cross-listed with MUSIC 5170S).
Credits: 1-30. Repeatable.
Prereq: Admitted to the Educator Preparation Program
Evaluation of instruction, lesson planning, and teaching in the liberal arts and sciences. (Typically Offered: Fall, Spring)

EDUC 5180: Secondary Science Methods I
(Dual-listed with EDUC 4180).
Credits: 3. Contact Hours: Lecture 3.
Develop an understanding of research-based practices for effective and equitable science teaching that align with state and national standards. Emphasis is on the character and role of science inquiry, teaching behaviors and strategies, and actively engaging students in self-evaluation and evidence-based inquiry learning experiences. (Typically Offered: Fall)

EDUC 5190: Secondary Science Methods II
(Dual-listed with EDUC 4190).
Credits: 3. Contact Hours: Lecture 3.
Advancing a research-based framework for effective and equitable science teaching rooted in the idea that students need opportunities to make sense of phenome, and grapple with scientific ideas using authentic science and engineering practices while observing science safety. (Typically Offered: Spring)

EDUC 5200: Bilingualism & The Education of Latinx Youth
(Dual-listed with EDUC 4200/ USLS 4200).
Credits: 3. Contact Hours: Lecture 3.
Introduction to research on bilingualism and examination of the social, historical, and political contexts of Spanish/English education in the U.S. Attention to policy environment, school program structure, mode of classroom instruction, family and community context, and attainment of bilingualism and biculturalism for Latinx youth. Meets U.S. Diversity Requirement. (Typically Offered: Fall)

EDUC 5210: Introduction to the Teaching and Learning of Mathematics and Science
Credits: 3. Contact Hours: Lecture 3.
Provides future secondary teachers with opportunities to explore learning theories and approaches for teaching mathematics and science, especially those related to constructivism and social constructivism. Opportunities to understand how students learn mathematics and science and how to assess secondary students' understanding in these content areas. Includes 12-hours (2 full days) of classroom observation in a nearby middle or high school and may include other practical experiences in teaching math and science. (Typically Offered: Summer)

EDUC 5220: Teaching and Learning Iowa History
(Dual-listed with EDUC 4220).
Credits: 3. Contact Hours: Lecture 3.
Multicultural and social justice focus on Iowa history; different theme each summer. Effective pedagogical and assessment strategies for integrating these themes into K-12 curriculum. (Typically Offered: Summer)

EDUC 5230: Teaching Students who Struggle in Mathematics
Credits: 3. Contact Hours: Lecture 3.
Explore and implement research-based instructional practices with K-8 students who are struggling with learning essential mathematical concepts. (Typically Offered: Spring)

EDUC 5260: Principles of Secondary Education
(Dual-listed with EDUC 4260).
Credits: 3. Contact Hours: Lecture 3.
Introduction to secondary education teaching strategies, lesson planning that provides equitable learning opportunities for all students, classroom management, legal aspects of schools, professional and ethical issues, current educational issues, professional learning communities, and social-justice oriented teaching. (Typically Offered: Fall, Spring, Summer)

EDUC 5290: Educational Psychology and the Secondary Classroom
Credits: 3. Contact Hours: Lecture 3.
Analysis of psychological research theory related to learning, cognition, motivation, individual differences, and teaching techniques. Student and classroom assessment to facilitate positive learning outcomes. Adaption and differentiation of instruction to meet individual learners' needs. This course can only be used for teacher licensure programs. It is not acceptable for use in meeting the non-licensure M.Ed., M.S. or Ph.D. requirements. (Typically Offered: Summer)

EDUC 5330: Theories of Learning
(Cross-listed with PSYCH 5330).
Credits: 3. Contact Hours: Lecture 3.
Major theories of learning and cognition in educational settings. Emphasis on behavioral, cognitive, constructivist, and sociocultural theories and their implications for educational policy and practice. (Typically Offered: Fall)

EDUC 5360: Sociocultural Theories of Learning
Credits: 3. Contact Hours: Lecture 3.
Study of sociocultural learning theories, including how knowledge is constructed through interactions and how learning is embedded in these interactions. Examination of how particular sociocultural approaches to learning can inform responsive teaching and responsive research, and impact opportunities for educational equity. (Typically Offered: Summer)

EDUC 5410: How People Learn: Implications for Teaching Science and Mathematics
Credits: 3. Contact Hours: Lecture 3.
Examination of theories of learning and motivation in science and mathematics and their application to teaching and current research in science and mathematics education.

EDUC 5460: Advanced Pedagogy in Science Education
Credits: 3. Contact Hours: Lecture 3.
Advanced examination of effective and equitable science teaching, emphasizing teacher behaviors and strategies, methods of self-evaluation, and current issues and trends in science education. Offered odd-numbered years. (Typically Offered: Spring)

EDUC 5470: Nature Of Science
(Dual-listed with EDUC 3470).
Credits: 3. Contact Hours: Lecture 3.
The history, philosophy, and sociology of science, how scientific knowledge differs from other forms of knowledge, and the relationship of the nature of science-to-science teaching and learning.

EDUC 5480: Restructuring Science Activities
Credits: 3. Contact Hours: Lecture 3.
Modification of laboratory activities and other everyday science activities so they are more congruent with how students learn, the nature of science, and national standards. (Typically Offered: Summer)

EDUC 5500: Ethnicity and Learning
(Dual-listed with EDUC 4500).
Credits: 3. Contact Hours: Lecture 3.
Examination of cultural relevance in education. Development and application of strategies and techniques for implementing multicultural goals and multiethnic perspectives in PreK-12 school classroom settings. Offered even-numbered years. (Typically Offered: Spring)

EDUC 5510: Assessment for Literacy and Learning
Credits: 3. Contact Hours: Lecture 3.
Analyzing, discussing, and researching the theory and practice of current literacy issues. (Typically Offered: Fall)

EDUC 5520: Corrective Reading
(Dual-listed with EDUC 4520).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 3780. *Concurrent enrollment in* EDUC 4880.
Identification, analysis and correction of reading problems in five areas: print knowledge, integration of print knowledge, oral reading fluency, vocabulary, and comprehension. (Typically Offered: Fall, Spring, Summer)

EDUC 5530: Teaching Adolescent Readers with Reading Difficulties
(Cross-listed with SPED 5530).
Credits: 3. Contact Hours: Lecture 3.
Instructional strategies for enhancing the fluency, vocabulary and comprehension of adolescents with reading difficulties. Attention to content-area reading materials and strategies. (Typically Offered: Fall, Spring)

EDUC 5550: Literacy, Leadership, and Advocacy
Credits: 3. Contact Hours: Lecture 3.
Examination of the roles of literacy specialists in diverse pre-K-12 schools and communities. Particular focus placed on current theories, research, standards, and policies relative to literacy processes and instruction, including culturally responsive literacy; successful methods of supporting teachers and other school personnel in planning, implementing, and evaluating literacy instruction for all students. (Typically Offered: Spring)

EDUC 5560: Integrating Technology into Literacy
(Dual-listed with EDUC 4560).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 2010 *or EDUC 2030;* EDUC 3770
Methods and strategies used to integrate technology into K-8 literacy. Examination of the use and evaluation of technology appropriate for elementary literacy classrooms. (Typically Offered: Fall, Summer)

EDUC 5580: Perspectives on Reading Comprehension
Credits: 3. Contact Hours: Lecture 3.
Critical examination of the topics central to the study of reading comprehension, including processes, development, contexts, motivation, teaching and learning, and assessment. Reading and discussion of research literature in reading comprehension and comprehension instruction. (Typically Offered: Fall)

EDUC 5590: Critical Approaches to Teaching Children's and Adolescent Literature
(Dual-listed with EDUC 4590).
Credits: 3. Contact Hours: Lecture 3.
Research and discussion of issues surrounding the classroom use of literature for children and young adults including censorship, diversity, selection, critical literacy and the influences of technology. Meets U.S. Diversity Requirement. (Typically Offered: Fall, Spring, Summer)

EDUC 5650: Literacy: Connecting Research, Policy and Practice
Credits: 3. Contact Hours: Lecture 3.
Critical examination of current policy initiatives and reform efforts that affect how literacy is viewed, assessed, and practiced, as well as how literacy professionals are prepared for their roles in public schools and colleges. (Typically Offered: Fall, Spring)

EDUC 5670: Teaching Secondary Learners with Mathematics Difficulties
(Cross-listed with SPED 5670).
Credits: 3. Contact Hours: Lecture 3.
Instructional methods and assessment techniques for secondary students struggling to learn mathematics. Particular emphasis on current research, practices, and trends in mathematics interventions for at-risk students and students with disabilities.

EDUC 5680: New Media Literacies: Understanding Research and Practice
Credits: 3. Contact Hours: Lecture 3.
Designed to increase awareness and understanding of critical issues surrounding the evolving concept of literacy and examine the effect that technology has on the literacy we use every day, teach in our schools, and need in order to function as 21st century citizens. (Typically Offered: Fall)

EDUC 5690: Critical Disciplinary Literacy across the Content Areas
Credits: 3. Contact Hours: Lecture 3.
Guided by frameworks of critical literacies and sociocultural theories of disciplinary literacy, students investigate the specialized and unique histories, discourses, practices, norms, and skills of select disciplines/programs/fields. Course is intended/differentiated for graduate students from various disciplines/programs/fields. Students will design their own inquiry-based critical disciplinary literacy research project. (Typically Offered: Spring)

EDUC 5750: International Travel Study in Education
(Dual-listed with EDUC 4750).
Credits: 1-6. Repeatable, maximum of 3 times.
Prereq: 6 graduate credits and permission of instructor
Seminar-based course for undergraduate and graduate students to develop a better understanding around global issues related to teaching, learning, curriculum, and educational policy through international travel study. 1 to 6 week duration involving study in a country other than the US. (Typically Offered: Summer)

EDUC 5770: Historical Perspectives on Technology Equity: Implications for Policy and Practice
Credits: 3. Contact Hours: Lecture 3.
Examination of the definition and origin of the 'digital divide' and its relationship to the histories of racism, sexism, classism, and imperialism/globalization. Exploration of the historical, political, sociological, and economic factors that engender global inequities. Exploration and analysis of research-based alternative approaches to alleviating technology inequities in educational settings. (Typically Offered: Spring)

EDUC 5780: Pedagogy, Equality of Opportunity, and the Education of Blacks in the United States
Credits: 3. Contact Hours: Lecture 3.
Examination of the historical, social, economic, political, and legal contexts of the education of Blacks in the U.S. Educational theories and philosophies, Critical Race Theory and Black Feminist Thought form the framework for investigating broad-based, multiple issues of education for Blacks in the U.S. as they are situated in the prevailing dominant views.

EDUC 5800: Studies in the Foundations of Education in the United States
Credits: 3. Contact Hours: Lecture 3.
Introduction to the historical and contemporary landscape of schooling in the United States. Emphasis is placed on topics and tensions in the relationship between school and society (e.g. equity of access to education and competing purposes of education) and the implications of these topics and tensions for teaching and learning in public schools. Designed for students in a graduate licensure program. (Typically Offered: Summer)

EDUC 5810: Philosophy of Education
(Dual-listed with EDUC 4810).
Credits: 3. Contact Hours: Lecture 3.
Introduction to philosophy of education. Emphasis is placed on historical and contemporary debates about the nature and purpose(s) of education in a just society. Possible topics include questions such as: When is one justified in claiming to know or to have learned? Who is morally responsible for a learner's education or schooling? What is a just distribution of educational opportunities? How might one teach philosophically? Offered odd-numbered years. (Typically Offered: Fall)

EDUC 5820: History of Public Schooling in the United States
Credits: 3. Contact Hours: Lecture 3.
Examination of the history of public schools in the United States. Historicizes the development of an educational system marked by both profound expectations and extreme inequalities. Readings include primary and secondary materials.

EDUC 5830: Inequality & Schooling in the U.S.
Credits: 3. Contact Hours: Lecture 3.
General introduction to the disciplinary tools of social and cultural studies to examine historical and contemporary inequalities and attempts to disrupt them in U.S. schools. Required for all TLLP doctoral students. (Typically Offered: Spring)

EDUC 5880: Supervised Tutoring in Reading
(Dual-listed with EDUC 4880).
Credits: 3. Contact Hours: Lecture 2.
Prereq: Graduate classification; concurrent enrollment in EDUC 5880
Using formal and informal diagnostic procedures to plan and implement individualized reading instruction. Field experience in tutoring and a related research project. (Typically Offered: Fall, Spring, Summer)

EDUC 5900A: Special Topics: Curriculum
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900B: Special Topics: Educational Technology
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900C: Special Topics: Science Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900D: Special Topics: Secondary Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900F: Special Topics: Social and Cultural Studies
Credits: 1-3. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900G: Special Topics: Mathematics Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900I: Special Topics: Elementary Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900J: Special Topics: World Language Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900K: Special Topics: Educational Psychology
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900L: Special Topics: Social Studies Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5900M: Special Topics: Literacy Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring)

EDUC 5910A: Graduate Level Pre-Student Teaching Experience: Secondary Social Studies
Credits: 0.5-6. Repeatable.
Supervised pre-student teaching experience in Social Studies education at middle school. Supervision level 3.

EDUC 5910C: Supervised Field Experience: Elementary Education
Credits: 0.5-6.
Supervised on-the-job field experience in special area. (Typically Offered: Fall, Spring, Summer)

EDUC 5910D: Graduate Level Pre-Student Teaching Experience: Secondary Science
Credits: 0.5-6. Repeatable.
Supervised pre-student teaching experience in secondary science education. Supervision level 3. (Typically Offered: Fall, Spring)

EDUC 5910EX: Graduate Level Pre-Student Teaching Experience: Secondary English Education
Credits: 0.5-6. Repeatable.
Pre-Stdnt Tchng-Eng. (Typically Offered: Fall)

EDUC 5910G: Graduate Level Pre-Student Teaching Experience: Secondary Mathematics Education
Credits: 0.5-6. Repeatable.
Supervised pre-student teaching experience in mathematics education. Supervision level 3. (Typically Offered: Fall, Spring)

EDUC 5910M: Supervised Field Experience: Literacy
Credits: 0.5-6.
Supervised on-the-job field experience in special area. (Typically Offered: Fall, Spring, Summer)

EDUC 5910N: Supervised Field Experience: College Teaching
Credits: 0.5-6. Repeatable, maximum of 6 credits.
Prereq: Instructor Permission for Course
Supervised on-the-job field experience in special area. (Typically Offered: Fall, Spring)

EDUC 5930A: Workshops: Curriculum
Credits: 1-3. Contact Hours: Lecture 3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930B: Workshops: Educational Technology
Credits: 1-3. Contact Hours: Lecture 3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring, Summer)

EDUC 5930C: Workshops: Science Education
Credits: 1-3. Contact Hours: Lecture 3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930D: Workshops: Secondary Education
Credits: 1-3. Contact Hours: Lecture 3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930F: Workshops: Social and Cultural Studies
Credits: 1-3. Contact Hours: Lecture 3.
Repeatable.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930G: Workshops: Mathematics Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930I: Workshops: Elementary Education
Credits: 1-3. Contact Hours: Lecture 3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930J: Workshops: World Language Education
Credits: 1-3. Contact Hours: Lecture 3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930K: Workshops: Educational Psychology
Credits: 1-3. Contact Hours: Lecture 3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5930L: Workshops: Social Studies Education
Credits: 1-3. Contact Hours: Lecture 3.
(Typically Offered: Fall, Spring)

EDUC 5930M: Workshops: Literacy Education
Credits: 1-3. Contact Hours: Lecture 3.
Repeatable.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring)

EDUC 5940: Contemporary Curriculum Theory and Principles
Credits: 3. Contact Hours: Lecture 3.
Theoretical and historical perspectives of contemporary curriculum; social, cultural, and epistemological aspects of curriculum theory; diverse philosophical positions and approaches to understanding curriculum as it relates to educational settings. (Typically Offered: Fall)

EDUC 5950: Teaching Disciplinary Literacy
(Dual-listed with EDUC 3950).
Credits: 3. Contact Hours: Lecture 3.
Analysis and application of strategies to enhance students' disciplinary literacy development in middle and secondary school setting. Research paper related to a course topic for EDUC 5950. (Typically Offered: Fall, Spring, Summer)

EDUC 5970: Teaching Secondary School Mathematics
Credits: 3. Contact Hours: Lecture 3.
Develop an understanding of instructional planning, lesson implementation, and assessment in grades 5-12 mathematics, with a focus on reform-based mathematics, equity, and conceptual understanding. (Typically Offered: Fall)

EDUC 5990A: Creative Component: Curriculum
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 5990B: Creative Component: Educational Technology
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 5990C: Creative Component: Science Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 5990D: Creative Component: Secondary Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 5990F: Creative Component: Social and Cultural Studies
Credits: 1-3. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 5990G: Creative Component: Mathematics Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 5990I: Creative Component: Elementary Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

EDUC 5990J: Creative Component: World Language Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring, Summer)

EDUC 5990K: Creative Component: Educational Psychology
Credits: 1-3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring, Summer)

EDUC 5990L: Creative Component: Social Studies Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC
(Typically Offered: Fall, Spring, Summer)

EDUC 5990M: Creative Component: Literacy Education
Credits: 1-3.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course
(Typically Offered: Fall, Spring, Summer)

Courses for graduate students:

EDUC 6020: Educational Inquiry in Action
Credits: 3. Contact Hours: Lecture 3.
Opportunities to learn about a variety of faculty research in theSchool of Education, engage faculty in conversation about their research, and continue reflecting on the theory and practice of educational inquiry. Offered on a satisfactory-fail basis only. (Typically Offered: Spring)

EDUC 6030: Advanced Learning Environments Design
(Cross-listed with HCI 6030).
Credits: 3. Contact Hours: Lecture 3.
Prereq: EDUC 5030
Exploration of advanced aspects of the learning environments design process. Application of analysis, design, development and production, evaluation, implementation, and project management principles. Theory and research in educational technology provides the foundation for design decisions. Focus on current trends in learning environment design and the production and use of educational technology. (Typically Offered: Spring)

EDUC 6080: Social Media and Education
(Cross-listed with HCI 6080).
Credits: 3. Contact Hours: Lecture 3.
Increase understanding of how social media is changing traditional concepts of identity, literacy, citizenship and more. Develop an online social presence through active social media participation. (Typically Offered: Fall)

EDUC 6100: Digital Learning in Teacher Education
Credits: 3. Contact Hours: Lecture 3.
Research on using technology in teacher education programs. Application examples studied. Field component involving relating material from class to a teacher education situation. (Typically Offered: Fall)

EDUC 6110: Philosophical Foundations of Educational Technology
Credits: 3. Contact Hours: Lecture 3.
Prereq: 12 graduate credits in EDUC
Exploration of philosophies of science that serve as foundations for research and practice in educational technology, including positivism, post-positivism, interpretivism/constructivism, and critical theory. The roles of language, nature of truth and reality, and acceptable ways of knowing are explored in terms of their implications for educational technology design, delivery, research, and scholarship.

EDUC 6120: Socio-psychological Foundations of Educational Technology
Credits: 3. Contact Hours: Lecture 3.
Examining socio-psychological theories of educational technology, their historical development, and their implications for the research and design of learning and instructional environments. Emphasis on cognitive and social constructivist paradigms and the creation and use of learning environments supported by technology.

EDUC 6150A: Seminar: Curriculum
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150B: Seminar: Educational Technology
Credits: 1. Contact Hours: Lecture 1.
Selected topics in educational technology; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150C: Seminar: Science Education
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150D: Seminar: Secondary Education
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150F: Seminar: Social and Cultural Studies
Credits: 1. Contact Hours: Lecture 1.
Repeatable.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150G: Seminar: Mathematics Education
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150I: Seminar: Elementary Education
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150J: Seminar: World Language Education
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150K: Seminar: Educational Psychology
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150L: Seminar: Social Studies Education
Credits: 1. Contact Hours: Lecture 1.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6150M: Seminar: Literacy Education
Credits: 1. Contact Hours: Lecture 1.
Repeatable.
Selected topics in curriculum and instruction; an analysis of research potential; evaluation of impact upon the profession; implications for additional research. (Typically Offered: Fall, Spring)

EDUC 6800: Motivation in Educational Contexts
Credits: 3. Contact Hours: Lecture 3.
Current conceptualizations and research regarding motivation in educational contexts from Pre-K through college. Understanding historical development of a body of research, including critical examination of inclusivity. Implications for education and practice.

EDUC 6900B: Advanced Special Topics: Educational Technology
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900C: Advanced Special Topics: Science Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900D: Advanced Special Topics: Secondary Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900F: Advanced Special Topics: Social and Cultural Studies
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900G: Advanced Special Topics: Mathematics Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900I: Advanced Special Topics: Elementary Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900J: Advanced Special Topics: World Language Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900K: Advanced Special Topics: Educational Psychology
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900L: Advanced Special Topics: Social Studies Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6900M: Advanced Special Topics: Literacy Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990A: Research: Curriculum
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990B: Research: Educational Technology
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990C: Research: Science Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990D: Research: Secondary Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990F: Research: Social and Cultural Studies
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990G: Research: Mathematics Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990I: Research: Elementary Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990J: Research: World Language Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990K: Research: Educational Psychology
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990L: Research: Social Studies Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course

EDUC 6990M: Research: Literacy Education
Credits: 1-30. Repeatable.
Prereq: 9 graduate credits in EDUC; Instructor Permission for Course