Teaching and Learning

Chair

- Lia M. Plakans

Undergraduate majors: art education (BA); elementary education (BA); English education (BA); mathematics education (BA); music education (BA); science education (BA); social studies education (BA); world language education (BA); science studies (BS, granted by the College of Liberal Arts and Sciences)

Graduate degrees: MA in teaching and learning; MAT in teaching and learning; MS in teaching and learning; PhD in teaching and learning

Faculty: https://education.uiowa.edu/directory

Website: https://education.uiowa.edu/about/administration/department-teaching-and-learning

Department of Teaching and Learning programs prepare graduates for positions in public schools, local and state education agencies, clinical settings, and institutions of higher education. All licensure programs are approved by the Iowa Department of Education.

Undergraduate students pursuing a BA with a major in art education, elementary education, English education, mathematics education, music education, science education, social studies education, or world language education, must satisfy the GE CLAS Core requirements.

Undergraduate students pursuing a BS with a major in science studies must meet the College of Liberal Arts and Sciences requirements for the Bachelor of Science degree, including the GE CLAS Core; see the College of Liberal Arts and Sciences Academic Policies Handbook.

The Department of Teaching and Learning offers, or jointly administers with departments in the College of Liberal Arts and Sciences, advanced degree programs in the following fields of professional interest: art education; English education; world/foreign language, multilingual, and English as a Second Language education; literacy, culture, and language education; mathematics education; music education; science education; social studies education; special education; STEM education; and teaching, leadership, and cultural competency.

Graduate Degree Programs

The department offers graduate degree programs in three major areas: elementary education, secondary education, and special education.

Elementary Education Programs

- art education (offered in the MA and MAT in teaching and learning); and
- teaching, leadership, and cultural competency (offered in the MA in teaching and learning).

Secondary Education Programs

- art education (offered in the MA and MAT in teaching and learning);
- English education (offered in the MA and MAT in teaching and learning);
- world language and English as a Second Language (ESL) education (offered in the MA and MAT in teaching and learning);
- literacy, culture, and language education (offered in the PhD in teaching and learning);
- mathematics education (offered in the MA, MAT, and PhD in teaching and learning);
- science education (offered in the MS, MAT, and PhD in teaching and learning);
- social studies education (offered in the MA and MAT in teaching and learning);
- special education (offered in the MA and PhD in teaching and learning);
- STEM education (offered in the MS in teaching and learning); and
- teaching, leadership, and cultural competency (offered in the MA in teaching and learning).

The secondary education area also collaborates with the College of Liberal Arts and Sciences to offer an education option for graduate students earning an MS in mathematics; an MA and PhD in music with a concentration in music education; and a combined BA/MAT in teaching and learning with a science education subprogram for undergraduates majoring in biology, chemistry, environmental sciences, or physics. In addition, the area offers an ESL endorsement for individuals who are enrolled in a Department of Teaching and Learning graduate degree program or who are licensed in-service teachers.

In addition, the MA in music is administered by the School of Music (College of Liberal Arts and Sciences) in cooperation with the College of Education. The concentration in music education provides students with deeper insights into music, the theory and practice of music education, and the role of music in the school curriculum.

The PhD in music with concentration in music education prepares students for teaching, research, and administrative posts. Graduates find employment as college teachers of music education classes and activities; as band, chorus, and orchestra directors; and as administrators of music departments and schools of music. Some apply their skills in public schools as music supervisors, research and curriculum consultants, and directors of city or district school music programs. Doctor of Philosophy students whose concentration is music therapy enroll in the PhD program with concentration in music education. Modifications in the curricular requirements are made to reflect the professional knowledge and skills required for positions such as college teaching or advanced clinical or research positions in music therapy. Both programs are administered by the School of Music (College of Liberal Arts and Sciences) in cooperation with the College of Education.

Special Education Program

- special education (offered in the MA and PhD in teaching and learning).

Applicants for admission to University of Iowa graduate degree programs must meet the admission requirements of the Graduate College; see the Manual of Rules and Regulations on the Graduate College website.

Graduate Certificates

The graduate Certificate in Applied Behavior Analysis is offered by the Department of Teaching and Learning. To learn

more, see the Certificate in Applied Behavior Analysis in the catalog.

The graduate Certificate in Talent Development is offered by the Department of Teaching and Learning. To learn more, see the Certificate in Talent Development in the catalog.

Programs

Undergraduate Programs of Study

Majors

- Major in Art Education (Bachelor of Arts)
- Major in Elementary Education (Bachelor of Arts)
- Major in English Education (Bachelor of Arts)
- Major in Mathematics Education (Bachelor of Arts)
- Major in Music Education (Bachelor of Arts)
- Major in Science Education (Bachelor of Arts)
- Major in Social Studies Education (Bachelor of Arts)
- Major in World Language Education (Bachelor of Arts)
- Major in Science Studies (Bachelor of Science)

Graduate Programs of Study

Majors

- Master of Arts in Teaching and Learning
- Master of Arts in Teaching in Teaching and Learning
- Master of Science in Teaching and Learning
- Doctor of Philosophy in Teaching and Learning

Financial Support

A limited number of teaching assistantships are available for graduate students. Assignments vary. Some involve supervising undergraduate majors enrolled in practicums; some involve teaching sections of undergraduate methods courses and supervising student teachers; others consist primarily of research activities. Graduate assistants may register for a maximum of 12 s.h. of credit per semester, but they must register for at least 6 s.h. per semester.

All assistantships are awarded on a competitive basis. Applicants must have been admitted to regular status in the Graduate College and to an advanced program in the College of Education. For information about assistantships, consult the College of Education advisor in the appropriate field.

Courses

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Teaching and Learning Courses

EDTL:1050 Opportunities in Education 2 s.h.
Introduction for underrepresented students to the teaching profession and its widely varied opportunities; faculty, students, recipients of awards in education; tours of Iowa City schools; reflection on and personal integration of class learning experiences, consideration of future plans.

EDTL:1129 First-Year Seminar 1 s.h.
Small discussion class taught by a faculty member; topics chosen by instructor; may include outside activities (e.g., films, lectures, performances, readings, visits to research facilities). Requirements: first- or second-semester standing.

EDTL:2000 Big Ideas: Creativity for a Lifetime 3 s.h.
Exploration of what senior artists can teach about creativity and aging; interdisciplinary project-based collaborative learning opportunities that consider role of arts and creativity across a lifespan; essential skills necessary to be professionals in numerous careers including health, social work, education, humanities, and the arts; identification of ways for students to be more creative in their own lives and work. GE: Values and Culture. Same as ARTS:2000, ASP:2000, RHET:2000.

EDTL:2015 Teaching as a Human Endeavor 3 s.h.
Introduction to teaching with focus on role as a human endeavor including purposes, goals, and values; special attention to contemporary issues in teaching and learning with an overview of planning processes, role of settings, contexts, and differentiation; exploration of appropriate ways to study teaching across disciplines and under various professional standards.

EDTL:2073 Finding Your Comfort Zone: Secrets to Success 1,3 s.h.
Understanding the strengths and challenges of people with special needs; insights into unwritten "rules" of college life; optional practicum involves working hands-on with people who have multiple learning and cognitive disabilities; students with disabilities or those interested in learning more about disabilities are encouraged to enroll.

EDTL:2111 Teaching Elementary Learners I: Pursuits and Reflection 2 s.h.
Foundational support for future elementary teachers; development of an understanding of teaching with a humanizing orientation; use of inquiry, reflection, and collaboration to introduce UI teacher education core pursuits that center equity; focus on elementary education and learners through valuing identities and multiple perspectives, developing skills and supporting intellect, and critically reflecting on social and political implications of a teacher's role in education.

EDTL:2112 Teaching Elementary Learners II: Communities and Classrooms 2 s.h.
Foundational support for future elementary teachers; development of an understanding of teaching with a humanizing orientation; use of inquiry, reflection, and collaboration to delve into UI teacher education core principles through integration across disciplines; engagement in elevating and advocating for future elementary students' communities through respect and care; incorporates Teacher Education Program pre-admission requirements and individual interviews with elementary education faculty.

EDTL:2122 Creativity, Imagination, Play, and Human Development through the Arts 3 s.h.
Theories related to human development and visual arts; use of visual arts to make meaning from experience; ways to integrate visual arts into everyday life; cognitive and physical processes involved in making, understanding, and looking at visual art through studio experiences; theories of cognitive development; role of visual art in education; introduction to art production, history, criticism, and aesthetics. GE: Literary, Visual, and Performing Arts.

EDTL:2155 Pursuing Core Principles in Elementary Education 2 s.h.
Supports future elementary teachers in developing a humanizing orientation toward elementary teaching across all content areas. Uses inquiry, reflection, and collaboration to introduce students to the University of Iowa teacher education core principles. Learn about the importance of valuing identities and multiple perspectives; developing skills and supporting intellect; and critically reflecting on the social and political implications of elementary education. Learn about the elementary education program and meet program faculty throughout the course.

EDTL:2630 Introduction to the Psychology of Music 3 s.h.
Processes by which people perceive, respond to, create, and use music in their daily lives; basic physics of musical stimuli, psychoacoustics of musical perception, principles of musical cognition, neurological and physiological responses to music, theories of musical learning and development, and social psychology of musical activity; previous musical performing experience helpful but not required. GE: Social Sciences. Same as MUS:2630.

EDTL:2670 Peacebuilding, Singing, and Writing in a Prison Choir 3 s.h.
Students sing with the Oakdale Community Choir inside the Iowa Medical and Classification Center as a service-learning component; students explore meanings of peacebuilding for themselves and community, and use their imaginations to consider new directions of peacebuilding through reading, reflecting, writing, inner peacebuilding, and communal peacebuilding projects; use of choral singing inside prisons to build peace, create positive social connections, transform attitudes toward healing approaches to justice, and inspire a sense of deep care within oneself and among others. GE: Diversity and Inclusion.

EDTL:2821 Oral Interpretation 3 s.h.
Weekly performances to develop and define communication skills for professional careers in teaching and business; poetry, prose, monologue, storytelling, duo interpretation, reader's theatre, and demonstration speeches. Same as COMM:2821.

EDTL:2963 Monsters, Victims, and Villains: Changing Perceptions 3 s.h.
Introduction to implementation of performance opportunities for special populations (defined as those with cognitive or physical disability) and underrepresented populations; students gain skills necessary to create radical opportunities for and implementation of performances including individuals with disabilities in theatre, dance, and music; students from different backgrounds experience collaborative artistic excellence while redefining audience expectations; historic background for perceptions of disability. GE: Diversity and Inclusion. Same as THTR:2605.

EDTL:3001 Introduction to Museum Studies 3 s.h.
Overview of museum history, function, philosophy, collection, and curatorial practices; governance and funding issues; exhibition evaluation and audience studies; examples from Stanley Museum of Art, Museum of Natural History, Old Capitol Museum, and Medical Museum. GE: Social Sciences. Same as ANTH:3001, MUSM:3001, SIED:3001.

EDTL:3002 Teaching and Learning Technologies 2-3 s.h.

EDTL:3059 Introduction to Education and the Regents Alternative Pathway to Iowa Licensure Program 4 s.h.
Foundational knowledge and understanding of educational practices for teacher intern candidates in the Regents Alternative Pathway to Iowa Licensure (RAPIL) program; topics include students as learners, the instructional process, and assessment. Requirements: admission to the RAPIL program.

EDTL:3060 Learning and Instruction for Today's Classrooms 3 s.h.
First course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3061 Assessment for Learning 3 s.h.
Fourth course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3062 Learning Communities 3 s.h.
Fifth course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3063 Creating Classrooms Conducive to Teaching and Learning 3 s.h.
Third course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3064 Intern Seminar on Critical Issues in Education 3 s.h.
Sixth course in the Regents Alternative Pathway to Iowa Licensure program. Requirements: admission to the RAPIL program.

EDTL:3065 Methods in Teaching in the Secondary Classroom 3 s.h.
Learn, identify, and implement effective content-specific secondary teaching methods with focus on active student engagement; students develop and enhance instructional planning/pedagogy with special emphasis on content-specific secondary teaching methods, including reading in content area; describe and implement process of pre-, formative, and summative assessment strategies, appropriately aligning them in the instructional design of secondary content lessons; taking specific steps toward improving professional dispositions.

EDTL:3067 Regents Alternative Pathway to Iowa Licensure Clinical Field Experience I 3 s.h.
Students co-teach under guidance of a cooperating teacher in a secondary classroom; active engagement in the classroom through whole and small group interactions; planning and teaching a series of lessons; reflection with a Regents Alternative Pathway to Iowa Licensure (RAPIL) evaluator. Corequisites: EDTL:3060.

EDTL:3068 Regents Alternative Pathway to Iowa Licensure Clinical Field Experience II 3 s.h.
Students co-teach under guidance of a cooperating teacher in a secondary classroom; active engagement in the classroom through whole and small group interactions; planning and teaching a series of lessons; reflection with a Regents Alternative Pathway to Iowa Licensure (RAPIL) evaluator. Corequisites: EDTL:3061.

EDTL:3070 Regents Alternative Pathway to Iowa Licensure Elementary Practicum 2 s.h.
Students co-teach under guidance of a cooperating teacher in an elementary classroom; active engagement in classroom through whole and small group interactions with students; planning and teaching at least two lessons; reflection with Regents Alternative Pathway to Iowa Licensure (RAPIL) evaluator; for RAPIL program candidates to complete a 40-hour practicum to add K-8 licensure in art, physical education, music, or health to an already completed 5-12 endorsement in same content area.

EDTL:3091 Secondary Education Program Orientation and Classroom Management 1,3 s.h.
Overview including opportunities, policies and procedures, requirements and expectations, and services associated with the Teacher Education Program; characteristics of the classroom environment and their implications for organization and management; concepts and principles teachers can use when thinking about managerial tasks in the classroom; for prospective middle and secondary school teachers.

EDTL:3095 Teaching Reading in Secondary Content Areas 1,3 s.h.
Integration of reading strategies into secondary content areas for teacher candidates in secondary education.

EDTL:3103 Assessment for Instructional Planning and Practice 3 s.h.
Fundamentals of using assessment data to make instructional planning decisions that preservice educators need in their advanced coursework and classrooms; practical application with curriculum-based procedures; emphasis on classroom-based procedures used to make educational decisions to plan instruction for students, particularly those who are experiencing academic difficulty. Requirements: admission to TEP.

EDTL:3114 Parent-Child Relationships 3 s.h.
Roles and relationships within and between families, culture, society; identify (family) resources and concerns based on children's development, abilities.

EDTL:3115 Museum Education and Interpretation 3 s.h.
Examination of the educational role of museums; educational theory, audience development, teaching strategies, accessibility, and evaluation within museum context; community-engaged project and collaboration with museum to develop curriculum and educational resources. Same as MUSM:3115.

EDTL:3120 Methods and Materials: Music for the Classroom Teacher 2 s.h.
Development of music skills, techniques, knowledge of methods and materials for teaching music to young children; for elementary education majors. Requirements: admission to TEP.

EDTL:3123 Reading and Responding to Children's Literature 3 s.h.
Reading and teaching of children's literature; becoming more knowledgeable readers of children's literature; using children's literature in elementary classroom for aesthetic, personal, social, and critical purposes; wide range of literary texts in different genres and multiple ways readers might experience these texts given particular teaching approaches; ways in which readers interact with texts and with each other to make meaning as they read and discuss literature. Requirements: admission to elementary TEP.

EDTL:3127 Methods and Materials: Physical Education, Health, and Wellness 2-3 s.h.
Methods, curriculum. Requirements: admission to TEP.

EDTL:3128 Practicum in Physical Education 1 s.h.
Observation of elementary physical education teachers and classes; discussions and papers concerning these experiences; for students pursuing the K-8 Physical Education endorsement. Corequisites: EDTL:3127.

EDTL:3130 Adaptive Physical Education for the Elementary Classroom Teacher 2 s.h.
Create and deliver quality, inclusive physical education for students with mental, physical, or emotional disabilities; identify and evaluate the needs of disabled students, plan units and lessons with appropriate modifications for all learners, write an IEP, comply with IDEA in a physical education setting. Prerequisites: EDTL:3127.

EDTL:3131 Movement Education 2 s.h.
Movement education as a basis for psychomotor and cognitive development in children; summary of basic growth and motor development; in-depth instruction on theory and application of movement education curriculum, and practice on design and execution of movement education lessons.

EDTL:3141 Elementary School Mathematics: Number and Operations 3 s.h.
Problem-solving approach to current trends in math education and process of teaching math; current math content knowledge assessed at start and end of course; opportunities to strengthen number and operations content knowledge; how children in grades K-5 think about and learn math; core ideas of learning, teaching, planning, and assessing number and operations concepts and skills; research-based pedagogical strategies that help children develop math concepts and procedures. Requirements: admission to TEP.

EDTL:3142 Elementary School Mathematics: Geometry and Measurement 3 s.h.
Problem-solving approach to current trends in math education; current math content knowledge assessed at start and end of course; opportunities to strengthen geometry and measurement content knowledge; how children in grades K-5 think about and learn math; core ideas of learning, teaching, planning, and assessing geometry and measurement concepts and skills; research-based pedagogical strategies that help children in elementary school develop math concepts and procedures. Requirements: admission to TEP.

EDTL:3143 Methods of Elementary Art and Field Experiences 3 s.h.
Application of studio methods to teaching children in Saturday Children's Art Class Program. Same as ARTE:3143.

EDTL:3146 Elementary School Mathematics: Data/ Probability and Algebra 3 s.h.
Problem-solving approach to current trends in math education and process of teaching math; current math content knowledge assessed at start and end of course; opportunities to strengthen data analysis/probability and algebra content knowledge; how grade K-5 children think about and learn math; core ideas of learning, teaching, planning, and assessing data/probability and algebra concepts and skills; research-based pedagogical strategies that help children develop math concepts and procedures. Requirements: admission to TEP.

EDTL:3160 Reading and Language Arts Methods for Primary Students in Grades K-3 3 s.h.
Theoretical foundations and practical skills to become reflective professionals who can design and implement effective reading and language arts instruction; authentic formative assessment for economically, academically, culturally, racially, and linguistically diverse children in grades K-3; for preservice elementary teachers. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C-. Requirements: admission to elementary TEP.

EDTL:3161 Social Studies for the Elementary Classroom Teacher 3 s.h.
Individual growth and change due to environment, economy, and technology; focus on developing teacher's understanding of social and behavioral sciences and how they relate to geography, history, and government in student's growth toward democratic citizenship; emphasis on need to develop intellectually stimulating curricula based on Iowa Core in behavioral science; lesson and curriculum development from research-based best practices in teaching social studies and driven by Iowa Core goals and objectives; technology as a teaching tool and focus of investigation in today's society. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C-. Requirements: admission to elementary TEP.

EDTL:3163 Methods: Elementary School Mathematics 2-3 s.h.
Content; techniques of teaching and means of assessment for K-6 mathematics. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C- and (EDTL:3141 or MATH:1120). Corequisites: EDTL:3170 and EDTL:3174. Requirements: admission to TEP.

EDTL:3164 Reading and Language Arts Methods for Intermediate Students in Grades 3-6 3 s.h.
Theoretical foundations and practical skills to become reflective professionals who can design and implement effective reading and language arts instruction; authentic formative assessment for economically, academically, culturally, racially, and linguistically diverse children in grades 3-6; for preservice elementary teachers. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C-. Requirements: admission to elementary TEP.

EDTL:3165 Elementary Science Methods I 3 s.h.
Meaningful and practical learning experiences to foster elementary science learning environments that engage learners in scientific practices and understanding of biological and chemical sciences; essential concepts; instruction to promote elementary student learning; learning, teaching, subject matter, curriculum, and assessment. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C-.

EDTL:3166 Elementary Science Methods II 3 s.h.
Meaningful and practical learning experiences to foster elementary science learning environments that engage learners in scientific practices and understanding of physical and earth/space sciences; essential concepts; instruction to promote elementary student learning; learning, teaching, subject matter, curriculum, and assessment. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C- and EDTL:3165.

EDTL:3170 Elementary Classroom Management 1-3 s.h.
Activities, techniques, strategies, theories related to effective classroom management. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C-. Corequisites: EDTL:3163 and EDTL:3174.

EDTL:3172 Elementary Reading Practicum 3-4 s.h.
Experience in teaching literacy to elementary students; opportunity to learn from an experienced teacher within a functioning classroom; supervisor with classroom experience mentors and supports students at practicum site; on-site practicum experiences preceded by on-campus seminar experience with practicum coordinator and supervisors; for preservice teachers. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C- and EDTL:3160 and EDTL:3164. Corequisites: EDTL:4171.

EDTL:3174 Elementary Math Practicum arr.
Experience in teaching mathematics to elementary students; opportunity to learn from an experienced teacher within a functioning classroom; supervisor with classroom experience mentors and supports students at practicum site; on-site practicum experiences preceded by on-campus seminar experience with practicum coordinator and supervisors; for preservice teachers. Prerequisites: EDTL:3002 with a minimum grade of C- and EDTL:3190 with a minimum grade of C-. Corequisites: EDTL:3163 and EDTL:3170.

EDTL:3180 Drama in the Classroom 3 s.h.
Theories of community, culture, identity in relation to language arts teaching and learning; emphasis on incorporating multiple literacies, both oral and print, into language arts curricula; action research involving oral literacy. Same as THTR:3610.

EDTL:3187 Early Literacy Instruction for Young Children 3 s.h.
Service-learning involving lecture, class discussion, and student participation in an early literacy program for preschoolers; concepts and skills necessary to conduct story time groups with young children that target development of print knowledge; application of learning by reading to small groups of preschool children. Recommendations: CSD:3118. Same as CSD:3187.

EDTL:3190 Orientation to Elementary Education 1-2 s.h.
Overview of elementary education expectations, including options for student teaching; classroom observation, lesson planning, performance indicators, InTASC standards, classroom management, information about mandatory child abuse reporting, blood-borne pathogens, professional ethics.

EDTL:3204 Art Education Studio and Field Components 3 s.h.
Art training related to processes of elementary and secondary school art teaching; studio methods applied to teaching children and adolescents. Requirements: concurrent enrollment in EDTL:3290 for Teacher Education Program student.

EDTL:3205 Methods of Secondary Art and Field Experience 3 s.h.
Art education theory and methods at secondary levels; art curriculum, unit, and lesson planning; evaluation, motivation, instructional materials; observational techniques.

EDTL:3290 Introduction and Practicum: Art 2-3 s.h.
Practice of learning from an experienced art teacher in an art classroom and setting; observations in an art classroom side-by-side with experience and insight gained through participating and teaching in the Saturday Art Workshop Program. Requirements: admission to TEP.

EDTL:3382 Language and Learning 2-3 s.h.
How language reflects and constructs learners' identities and cultures; readings related to oral and written language, native and second language development, linguistic diversity; discussion of the relationship of language theory to schools of language instruction. English majors and English and Creative Writing majors may apply this course to the following area and/or period requirement. AREA: Literary Theory and Interdisciplinary Studies. Same as ENGL:3190.

EDTL:3393 Reading and Teaching Adolescent Literature 3 s.h.
Reading and evaluation of literature suitable for junior and senior high school students. English majors and English and Creative Writing majors may apply this course to the following area and/or period requirement. AREA: Literary Theory and Interdisciplinary Studies. Same as ENGL:3191.

EDTL:3492 Teaching Spanish Heritage Speakers 3 s.h.
Focus on cutting-edge research and methods to develop suitable language curriculum for Spanish heritage speakers (SHS); topics include bilingual development, sociolinguistics, language teaching, and heritage speakers' affective needs; use of these theories to help understand and apply best practices in teaching SHS; topics also help create best practices in teaching mixed language courses for second language and heritage students. Taught in Spanish. Requirements: at least one course taught in Spanish at the 2000 level or above. Same as SPAN:3192.

EDTL:3532 Introduction and Practicum: Mathematics 3 s.h.
Experience designing and teaching lessons with varied instructional intent and use of multiple instructional strategies; study and practice methods of managing classroom learning environment; significant time spent in cooperating schools, on-campus meetings. Requirements: admission to TEP.

EDTL:3534 Methods: Middle School Mathematics 3 s.h.
Subject matter content, teaching and assessment techniques for grades 5-9 math; how students learn mathematics; mathematics curricular planning for all students.

EDTL:3605 Instrumental Techniques 2 s.h.
Same as MUS:3605.

EDTL:3610 Introduction and Practicum: Music 2 s.h.
Experience observing and assisting music teachers and students in elementary or secondary schools; at least one hour per week in the school plus on-campus class meetings. Requirements: admission to TEP.

EDTL:3620 Methods and Materials: General Music 3 s.h.
Methods for teaching general music in elementary and secondary schools. Prerequisites: EDTL:3610.

EDTL:3635 Instrumental Conducting 3 s.h.
Advanced skills for instrumental conducting, score analysis, rehearsal techniques, literature selection. Prerequisites: MUS:3625. Same as MUS:3635.

EDTL:3640 Choral Methods 3 s.h.
Organization, implementation of effective choral music programs for all ages. Prerequisites: EDTL:3610. Same as MUS:3640.

EDTL:3645 Choral Conducting and Literature 3 s.h.
Advanced skills appropriate to choral conducting, analysis, literature selection studied and implemented to develop a secure approach to choral art; students preparing to teach in the elementary or secondary schools must register under EDTL:3645. Prerequisites: MUS:3625. Same as MUS:3645.

EDTL:3650 Instrumental Methods and Materials 3 s.h.
Elementary and secondary instrumental music methods course required for K-12 music teacher certification. Prerequisites: EDTL:3610. Same as MUS:3650.

EDTL:3715 Experiential Teaching and Learning 3 s.h.
Introduction to practice of experiential learning and teaching; students create and lead experiential activities in formal and informal learning environments; exploration of factors that impact the value of an experience and assess impact; integration of multiple disciplines and perspectives in a collaborative manner; skills for processing and guiding reflection to determine outcomes of experiences; work collaboratively to design, plan, execute, and determine outcomes of an experience for a target population.

EDTL:3905 Teaching Deaf and Hard of Hearing Students 3-4 s.h.
Issues in d/Deaf education; management techniques, communication strategies, teaching strategies, instructional materials, hands-on activities, assessments, parent involvement; use of technology, ethnic and cultural diversity, classroom management, pre-reading techniques, literacy development, educational program options. Taught in English and/or American Sign Language. Requirements: for 4 s.h. option—concurrent enrollment in ASL:2002, if not taken as a prerequisite. Same as ASLE:3905.

EDTL:3915 Introduction: Strategist I (Elementary) 1-2 s.h.
Teaching students with mild disabilities in elementary resource placements; current trends and issues, basic and theoretical approaches, implications of federal and state statutes, multidisciplinary team approaches to providing appropriate educational programming; students complete a practicum with an elementary special education teacher. Requirements: admission to TEP.

EDTL:4021 Science for High Ability Students 1 s.h.
Unique challenges and opportunities confronted by teachers of students with above average ability and interest in science; theory and practice; development of program outlines for science programs.

EDTL:4022 Math Programming for High Ability Students 1 s.h.
Unique challenges and opportunities confronted by teachers of high-ability students; theory and practice, development of program outlines for implementation. Same as PSQF:4122.

EDTL:4023 Twice-Exceptionality Support Seminar 1 s.h.
Areas and issues that typically impact students diagnosed as twice-exceptional in college (specifically autism spectrum disorder); focus on navigating campus and services, communication skills (social and academic based), stress management, executive functioning skills, career and job seeking skills. Same as BBC:4023.

EDTL:4024 Differentiating Projects with Technology 1 s.h.
Use of digital tools to enrich student presentations; PowerPoint slide shows, presentations uploaded to World Wide Web, interactive multimedia presentations via HyperStudio.

EDTL:4025 Differentiated Instruction for the Gifted 1 s.h.
Program options for K-12 gifted students; student abilities and needs linked with various curriculums; case studies, school materials.

EDTL:4026 Reading for High-Ability Students 1 s.h.
Purposes and methods of reading instruction, with focus on developmentally appropriate needs of high-ability readers; genres of literature, enriched and accelerated reading curricula, role of reading in social and emotional development of gifted students.

EDTL:4029 Developing Leadership Skills for Gifted and Talented Students, K-12 1 s.h.

EDTL:4032 Middle School Curriculum, Methods, and Practicum 3 s.h.
Junior high and middle school development compared; characteristics of exemplary programs, disciplinary and interdisciplinary trends; variety of teaching methods (group and individual); hands-on activities. Requirements: admission to TEP.

EDTL:4065 Social Studies for High-Ability Learners 1-2 s.h.
Intersection of unique challenges presented by talented students and challenges of designing, implementing, and assessing quality inquiry-based social studies instruction; background in social studies or social studies education not required.

EDTL:4066 Curriculum Concepts in Gifted Education 3 s.h.
Analyzing and refining understanding of curriculum in context of: needs of gifted and talented students, rationale for and implementation of curriculum differentiation, and curriculum principles for and applications to gifted and talented; designed for preservice and inservice educators, as well as those interested in curriculum development, design, and delivery.

EDTL:4067 Conceptions of Talent Development 3 s.h.
Students review conceptions of talent development and explore possibilities for appropriate programming in specific fields across various stages in life; traditional opportunities in gifted education programs; stages of development in early childhood; development of knowledge and skills in addition to and beyond organized educational programs. Same as BBC:4067.

EDTL:4072 Thinking Skills 1 s.h.
Factors involved in teaching thinking skills as a total concept; the relationship of critical and creative thinking; review of published programs.

EDTL:4073 Programming/Curriculum for High Ability Students 1 s.h.
Programming and curriculum for K-12 students identified as gifted or highly able; in-class differentiations, special projects for pull-out programs, facilitating research projects, mentoring in advanced programming.

EDTL:4074 Differentiation at the Secondary Level 1 s.h.
Importance of differentiation for gifted learners in middle school and high school; differentiation through advanced placement programs as well as broader perspectives on differentiation; essentials for differentiation understood and applied to a lesson that will be implemented with students.

EDTL:4075 Topics in Talented and Gifted Programming arr.
Examination of various topics that allow educators to implement strategies for helping high-potential students succeed in gifted/talented programs.

EDTL:4083 Talented and Gifted Enhanced Field Experience 1-3 s.h.
Experience working with and/or observing gifted students; development of curricular materials; course is not the required practicum experience for talented and gifted (TAG) endorsement, but counts toward required total hours and provides a valuable learning opportunity to consider best practices for the age level students will be teaching.

EDTL:4085 Current Readings and Research in Gifted Education 1 s.h.
Research in the field of gifted education and talent development; applications of research to ensure best practices in providing services and programs for high-ability learners.

EDTL:4087 Seminar: Curriculum and Student Teaching 1-3 s.h.
Discussions, role-playing, group and individual reports, analysis of critical incidents, classroom management, videotapes of student classroom performance pertinent to participants' student teaching experiences. Requirements: student teaching.

EDTL:4089 Special Subject Area Student Teaching arr.
Supervised teaching experience in a single subject in grades 1-6.

EDTL:4091 Observation and Laboratory Practice in the Secondary School arr.
Student teaching experience in performing the duties of regular classroom teachers under supervision of experienced personnel in secondary schools.

EDTL:4092 Observation and Laboratory Practice in the Secondary School arr.
Continuation of EDTL:4091.

EDTL:4093 Teaching and Learning for a Global Perspective 3 s.h.
Examination of conceptualizations and themes, along with theories, strategies, and resources that can inform teaching and learning for global competence education in all disciplines; teaching for prejudice reduction and education for informed and responsible global citizenship; creation of a standards-based curriculum project; designed for practicing teachers.

EDTL:4096 Topics in Teaching and Learning arr.

EDTL:4098 Costa Rica YOULEAD: Youth Outdoor University for Leadership, Environment, Self-Awareness Development 3 s.h.
Project YOULEAD is a two-week intensive language and culture studies program in Costa Rica. Students are assigned to one of three sites in Costa Rica: Uvita, Cortes, or Puerto Jimenez. Students teach English to 20 students, ages 14-18, at the assigned site for the duration of the program, ending in a whole group day where all sites come together for a day of learning. Students are supported by two faculty/staff at each site. Opportunities exist both inside and outside the classroom to engage in learning about Costa Rica's culture, history, and natural ecosystems. Group meetings occur daily after site visits to discuss, debrief, reflect, and plan for the next day.

EDTL:4137 Introduction to Educating Gifted Students 3 s.h.
Fundamental issues such as curriculum, counseling, family issues, gender and minority issues. Same as CSED:4137.

EDTL:4153 Gifted and General Education Collaboration 1 s.h.
Need for differentiated learning experiences throughout the school day for gifted students; how classroom teachers and gifted/talented resource teacher collaborate to provide appropriate instructional services to gifted students; collaborative models, planning process, and recommendations for both direct and indirect services. Requirements: internet access.

EDTL:4171 Diversity and Exceptionalities in Literacy Instruction 3 s.h.
Elaborates on content from EDTL:3160 and EDTL:3164; issues in theoretically sound reading and writing assessment, instruction in K-8 classrooms where local, state, and national goals play increasing roles; reading and writing processes; teaching and learning of reading and writing; focus on role of language and conversation in learning, content area reading instructional strategies, classroom-based reading and writing assessment, special issues in teaching, and learning with textbooks. Prerequisites: EDTL:3190 with a minimum grade of C- and EDTL:3002 with a minimum grade of C- and EDTL:3160 and EDTL:3164.

EDTL:4187 Effective Teaching Strategies for the Elementary Teacher: Student Teaching Seminar 3 s.h.
Provides student teachers with a structured, consistent forum to critically examine and engage in professional dialogue related to the process of becoming a teacher; draws on personal classroom experiences as well as theories and ideas about education studied throughout the teacher education program; guided by the InTASC Model Core Teaching Standards and the Iowa Teaching Standards, students study and discuss principles of effective teaching practice that lead to improved student achievement; as students work through components of planning, instruction, assessment, and lesson reflection, they complete a Teacher Performance Assessment (edTPA). Requirements: elementary education major in student teaching semester.

EDTL:4188 Practicum in Teaching and Curriculum Development in Gifted Education 1-6 s.h.
Experience in developing course materials for classes offered through the Belin-Blank Center for Gifted Education. Same as CSED:4188.

EDTL:4189 Practicum in Gifted/Talented Education 1 s.h.
Experience developing course materials for classes offered through the Belin-Blank Center for Gifted Education.

EDTL:4190 Supervised Teaching in the Elementary School: Interactive Phase arr.
Student teaching at the elementary level (K-9). Corequisites: EDTL:4091. Requirements: application to the Office of Teacher Education and Student Services.

EDTL:4191 Supervised Teaching in the Elementary School: Pre- and Post-Active Phase arr.
Corequisites: EDTL:4190. Requirements: application to the Office of Teacher Education and Student Services.

EDTL:4192 Special Area Student Teaching arr.
Supervised teaching and observation in specific areas of elementary curriculum.

EDTL:4193 Independent Study arr.
Requirements: senior standing.

EDTL:4199 Program Models in Gifted Education 3 s.h.
Development and refinement of preservice and inservice educators' understanding of academic programs; needs of gifted and talented students, including diverse and often underrepresented groups of students; rationale for and implementation of a comprehensive program model for gifted students. Requirements: internet access.

EDTL:4314 Introduction and Practicum: Secondary English 3 s.h.
Experience observing and assisting English or speech teachers and students in secondary schools; 12 hours per week in the school plus on-campus class meetings.

EDTL:4315 Learning to Teach Secondary English/ Language Arts and Field Experience 3 s.h.
Organizational techniques, methods, materials for teaching high school English; experience in simulated teaching situations during laboratory sessions, integrated with lectures and discussions. Prerequisites: EDTL:4314. Same as ENGL:4810.

EDTL:4355 Approaches to Teaching Writing 3 s.h.
Theories, practices, strategies, and history of writing and teaching writing. English majors may apply this course to the following area and/or period requirement. AREA: Nonfiction and Creative Writing. GE: Engineering Be Creative. Same as CNW:4355.

EDTL:4392 Voice, Drama, and Debate in the Secondary Schools 3 s.h.
Introduction to elements of classical and contemporary rhetoric, the art of debate, oral interpretation and public speaking, dramatic methods in the classroom, and theater management; important issues and vocabulary of drama and debate including literary, theatrical, pedagogical, and sociohistorical concepts and terms; importance of classical rhetorical strategies and their relevance in the political realm; students work through drama, the creative process of playwriting, acting, designing, and staging a play.

EDTL:4393 Critical Media Studies and Production in Secondary Schools 3 s.h.
Introduction to teaching media in secondary schools; preparation to teach critical media literacy, media law and ethics, forms of journalism writing, and production process; emphasis on essential role of media in a democratic society; exploration of instructional strategies and organization practices to guide secondary students to think critically as media consumers and producers; students write and produce their own texts and experience processes to strengthen understanding of learning standards for secondary media students—communication, collaboration, creativity, and critical thinking.

EDTL:4394 Secondary Reading Instruction 2-3 s.h.
Methods and materials used in teaching developmental reading in all junior and senior high school content areas. Prerequisites: EDTL:4314.

EDTL:4406 World Language Practicum I 3 s.h.
Skill development for teaching languages in the early grades; curriculum design, test creation, microteaching with inservice teachers. Prerequisites: EDTL:4410. Corequisites: EDTL:4416.

EDTL:4407 World Language Practicum II 3 s.h.
Practice in lesson design, classroom management techniques, evaluation skills during work with inservice foreign language teachers. Prerequisites: EDTL:4410. Corequisites: EDTL:4417.

EDTL:4410 Language, Power, and Multilingual Education 3 s.h.
Language learning and teaching in multicultural classroom with focus on pedagogy, policy, and equality for multilingual learners. Requirements: admission to TEP.

EDTL:4416 Learning to Teach Second Languages I 3 s.h.
Approaches, methods, and techniques of teaching the modalities of listening, speaking, reading, and writing in a second language. Corequisites: EDTL:4406.

EDTL:4417 Learning to Teach Second Languages II 3 s.h.
Curriculum design, classroom management, student evaluation, technology, using context to teach culture in second languages. Prerequisites: EDTL:4410 or EDTL:6483. Corequisites: EDTL:4407.

EDTL:4418 ESL Practicum I 4 s.h.
Skill development for teaching English as a second language; curriculum design, test creation, microteaching with inservice teachers.

EDTL:4467 Methods: ESL and Bilingual Education 4 s.h.
Exploration of approaches, methods, and practices in teaching English to speakers of other languages in K-12 school settings; communicative and content-based approaches to language learning with practical application of theory and research; issues concerning linguistically diverse learners covered with pedagogical implications; skills in teaching approaches for English language learners; lesson and unit planning, materials evaluation and adaptation, and assessment for placement, diagnosis, exit, and evaluation of English language learners.

EDTL:4498 Language Structure for Teaching English Language Learners 4 s.h.
Exploration of theory, rules, and examples to gain practical understanding of the system of language structure; focus on working with English language learners from a variety of first language backgrounds in educational settings; principles of discourse, phonology, morphology, syntax, pragmatics, and semantics that build a framework for discussion of applications and analysis of student and teacher language; address English language learners' development in P-12 settings; strategies to evaluate learner language; increase awareness of language challenges for English language learners that can occur in spoken and written educational instruction and materials. Requirements: admission to TEP.

EDTL:4535 Methods: High School Mathematics 3 s.h.
Subject matter content, teaching and assessment techniques for grades 9-12 math; how students learn mathematics; mathematics curricular planning for all students. Prerequisites: EDTL:3534.

EDTL:4565 Mathematics in Management and Social Sciences 3 s.h.
Various real life applications of modern mathematics including management, decision-making, issue of optimization, methods for optimal scheduling, voting methods, game theory, error checking, and other related strategies.

EDTL:4630 Psychology of Music 2-3 s.h.
Cognition of music, affective response, aesthetic response, musical ability. Same as MUS:4630.

EDTL:4640 Introduction to Music Research 2-3 s.h.
Preparation for conducting research on music behavior.

EDTL:4750 Assessment in Science, Technology, Engineering, and Mathematics (STEM) 2 s.h.
Assessment used to evaluate teaching and learning in K-12 mathematics and science; formative and summative assessments; constructing assessment; methods to assess student knowledge in a classroom setting; culturally responsive assessment.

EDTL:4751 Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom 2 s.h.
Meaningful learning experiences in preparation to create effective science learning environments for secondary school age students and construct a vision as teachers of secondary science; opportunities to delve into contemporary learning theories and examine ways that learning theories explain the learning process as negotiated within a classroom.

EDTL:4752 Secondary Science Methods II with Field Experience 3 s.h.
Developing, writing, and orally defending a robust research-based framework for teaching science that includes student goals, student actions, content, materials, activities, teaching behaviors and strategies, contemporary learning theories, self-evaluation. Prerequisites: EDTL:4751.

EDTL:4753 Secondary Science Methods III with Field Experience 3 s.h.
Articulating, experiencing, practicing a research-based framework for teaching science in the real world of students, schools, teaching. Prerequisites: EDTL:4752. Corequisites: EDTL:4779.

EDTL:4768 Computer Science Methods 3 s.h.
Introduction to issues and ideas related to instruction of computer science courses; how to integrate computer science learning into other content areas or content learning into computer science courses in meaningful ways; meets all requirements the Iowa Board of Educational Examiners have set forth for computer science methods courses including curriculum development, project-based methodologies, communication about computing, and digital citizenship.

EDTL:4779 Secondary School Science Practicum arr.
Supervised teaching experience in a single subject; secondary school setting.

EDTL:4811 Introduction and Practicum: Secondary Social Studies 3 s.h.
Experience observing and assisting social studies teachers and students in secondary schools; nine hours per week in the school plus on-campus class meetings. Requirements: admission to TEP.

EDTL:4870 Methods: Secondary Social Studies 3 s.h.
Analysis of the teaching-learning process; organization of social studies content for teaching purposes; evaluation of learning procedures and new strategies; practicum work includes microteaching, computer-assisted modules, lesson plan development, writing test items.

EDTL:4900 Foundations of Special Education 3 s.h.
Students with disabilities, gifted and talented; strategies for effective treatment, collaboration between regular and special education teachers; remediation of academic, behavioral, social problems. GE: Diversity and Inclusion.

EDTL:4922 Supervised Teaching: Elementary Strategist I 6 s.h.
Student teaching at the elementary level in a program for students with mild to moderate disabilities. Requirements: elementary education major.

EDTL:4934 Parent-Teacher Communication 1-3 s.h.
Realities of working with parents; interpersonal skills; options for parent support services. Same as PSQF:4134.

EDTL:4936 Home/School/Community Partnerships 3 s.h.
Issues related to collaboration among families, educators, community members in implementing school programs. Same as PSQF:4136.

EDTL:4940 Characteristics of Disabilities 3 s.h.
Etiologies of mild/moderate disabilities; current educational trends; educational alternatives; importance of multidisciplinary team; psychological and social-emotional characteristics of individuals.

EDTL:4950 Behavioral and Social Interventions 3 s.h.
Individual behavioral management, behavioral change strategies, and social interaction strategies, methods, and techniques for individuals with exceptional learning needs.

EDTL:4967 Integrated Disability Studies Practicum 2 s.h.
Hands-on, interactive experience to learn what is involved in working with young adult students with multiple learning and cognitive disabilities; four whole-group classroom sessions and required attendance at one UI REACH course.

EDTL:4975 Explicit Instruction 3 s.h.
Empirically supported methods for teaching reading and mathematics K-12 to students with mild-moderate disabilities; assessment and curricular adaptations to individual needs.

EDTL:4980 Special Education Literacy 3 s.h.
Curriculum and materials to teach reading explicitly; making instructional decisions about student progress, evidence-based practices, and strategies to teach reading to students with disabilities; pedagogical principles and practices to instruct a whole class, small group, or individuals; focus on essential knowledge and skills associated with assessment, instruction, intervention, and assistive technology for students with and at risk for disabilities in grades K-8; designing lesson plans that incorporate reading strategies, practices, and assistive technology within reading instruction.

EDTL:4984 Academic Skills for Students with Special Needs 3 s.h.
Introduction to appropriate methodology for teaching academic skills to students with significant learning difficulties; how to teach students effectively regardless of the label that might be applied to them or the setting to which they might be assigned; effective application of classroom-based measurement, curriculum development, and instructional strategies for teaching academic skills to education students with special needs.

EDTL:4987 Introduction to Assistive Technology 3 s.h.
How assistive technology can be used for attainment of goals in education or work. Same as CSED:4187.

EDTL:4990 Interdisciplinary Issues in Disabilities 1-3 s.h.
Critical issues related to interdisciplinary delivery of services to persons with developmental disabilities; observation and participation in staffing and consultation; opportunity for related community experiences.

EDTL:5055 Academic Writing Workshop 3 s.h.
Drafting and workshopping academic papers including dissertations, proposals, manuscripts, conferences, and courses; discussions center on cross-disciplinary perspectives about academic writing processes and discourses; rhetorical considerations in academic writing; audience and readership within and across disciplines; clear and effective communication of data; writing choices, styles, and tones; students set writing goals and projects.

EDTL:5080 Workshop: Teacher Training for Advanced Placement Courses 1-2 s.h.
Focus on a particular academic content area. Same as BBC:5080.

EDTL:5081 Facilitating Student-Centered Discussions 3 s.h.
Support for educators who want to create classroom environments that prioritize student voice and democratic exchange of ideas; theoretical approaches to classroom discourse and dialogic teaching; how linguistic and racial power inform and constrain discussion; students analyze their current classroom discourse practices through theoretical lenses, including how teachers and students are informed by historically dominant discourse norms and ways that discussion topics and issues are labeled as controversial.

EDTL:5083 Diagnostic Reading Instruction 3 s.h.
Examination of research, policies, and practices related to reading assessments and intervention for school-aged children and adolescents; key focus on translating theoretical foundations of reading into practice of designing targeted interventions for students with varying strengths and weaknesses in core reading components; activities provide an understanding of underlying principles of diagnostic reading instruction and field-based practice in administering, scoring, and interpreting reading assessments; making data-based decisions about instruction for individual and small groups of students. Requirements: admission to MA in teaching, leadership, and cultural competency program.

EDTL:5085 Generation Innovation: Technology Integration in 21st-Century K-12 Schools 3 s.h.
Exploration of the technology that shapes 21st-century U.S. schools, curriculum, and teacher professional development; examination of ways in which technology integration and use shapes student learning and identity development. Requirements: admission to MA program in teaching, leadership, and cultural competency.

EDTL:5087 Anti-Oppressive Literature Instruction 3 s.h.
Support for K-12 teachers in selecting, analyzing, and planning discussions about literary texts in support of anti-racist and anti-oppressive teaching and learning; educators and scholars committed to critical pedagogy and anti-racist and anti-oppressive education argue that reading and analyzing texts by and about people of color and historically marginalized groups is an essential part of equitable, democratic education; how education is never neutral; choosing an explicit anti-oppressive stance; recognizing literature's role in promoting equity and analyzing oppressive forces in education.

EDTL:5090 Diversity and Identity in K-12 Schools 3 s.h.
Advanced seminar on diversity- and identity-related issues in K-12 education for practicing teachers and K-12 professionals; students engage in regular self-evaluation of practices and develop deeper understanding of racism, sexism, classism, and other forms of oppression as they relate to the practices of K-12 teachers and schools; curricular and pedagogical decision-making, relative to impact on student identity. Requirements: admission to master's in teaching, leadership, and cultural competency program.

EDTL:5091 LGBTQ Topics in Education 3 s.h.
In spite of many challenges that lesbian, gay, bisexual, transgender, and queer-identified youth experience in U.S. K-12 schools, queer youth demonstrate agency and action as they create positive spaces and community for their identities; examination of the intersection of policy and practice with respect to queer identities at all levels of K-12 education; history of queerness in the U.S. with focus on the creation of the concept of compulsory heterosexuality and the manner in which this concept is reinforced in K-12 schools.

EDTL:5095 Issues in U.S. Schools 3 s.h.
Addresses critical questions facing American public schools, including governance, policy structures, and practices that have influenced teachers' professional instruction and students' school learning experiences. Requirements: admission to the MA in teaching, leadership, and cultural competency program.

EDTL:5099 Conducting School-Based Action Research 3 s.h.
Focus on teachers or administrators as change agents and researchers in schools/districts; scholarly approach to improving teaching and learning by way of an action research project. Requirements: completion of all MA in teaching, leadership, and cultural competency coursework.

EDTL:5104 Language Disorders in School-Aged Children 3 s.h.
Emphasis on elementary grades; usually taken in conjunction with EDTL:4192, which provides approximately 70 hours of supervised clinical practice in elementary schools. Recommendations: primarily for communication sciences and disorders majors. Same as CSD:5104.

EDTL:5222 Creativity, Imagination, Play, and Human Development Through the Arts 3 s.h.
Theories related to human development and visual arts; use of visual arts to make meaning from experience; ways to integrate visual arts into everyday life; cognitive and physical processes involved in making, understanding, and looking at visual art through studio experiences; theories of cognitive development; role of visual art in education; introduction to art production, history, criticism, and aesthetics.

EDTL:5600 Graduate Music Education Workshop 1 s.h.
For inservice music teachers; topics vary. Same as MUS:5600.

EDTL:5601 Graduate Music Education Workshop II 1 s.h.
Varied topics; for inservice music teachers. Same as MUS:5601.

EDTL:5610 Foundations of Music Education Curricula 3 s.h.
Curriculum development, instructional materials, analysis of current teaching methods and techniques in school music programs; historical foundations of music education.

EDTL:5961 Foundation of Applied Behavior Analysis 3 s.h.
Foundational knowledge in basic principles and philosophical assumptions of behavior analysis, behavioral terminologies, verbal operants, and measurement concepts; explicitly links theory of behavior to practical application (e.g., special education); one of seven courses needed to qualify for the Board Certified Behavior Analyst (BCBA) exam. Corequisites: EDTL:7953.

EDTL:5962 Function of Behaviors and Interventions 4 s.h.
Functional assessment/analysis and interventions designed to change behaviors; describing and implementing components of functional behavioral assessment; using results of a functional assessment to develop a program to teach appropriate behavior and/or decrease inappropriate behaviors; development of an instructional program to teach desired behaviors; third in a four-course sequence to prepare Chinese-speaking students to sit for the Board Certified Assistant Behavior Analyst (BCaBA) certification exam sponsored by the Behavior Analyst Certification Board (BACB). Prerequisites: EDTL:5961 and EDTL:7953.

EDTL:5963 Ethics and Professional Conduct for Behavior Analysts and Psychologists 3 s.h.
Issues related to ethical and professional conduct of behavior analysts and school psychologists; content aligned with BACB Professional Disciplinary and Ethical Standards and Guidelines for Responsible Conduct for Behavior Analysts, NASP principles of professional ethics, and APA ethical principles; ethical conduct considerations for professionals conducting research or providing services to vulnerable populations; one of seven courses meeting academic requirements for board certification as a behavior analyst; ethical practices relate to working with individuals with autism spectrum disorders, developmental disabilities, and behavioral/emotional disorders.

EDTL:5964 Behavior Analyst Practicum 1-4 s.h.
Development, implementation, and evaluation of techniques that produce behavior changes in clients; discussion of key issues related to techniques of applied behavior analysis; review of various theoretical, conceptual, historical, legal, and practical aspects of behavior analysis; provides a portion of the supervisory component as required by the Behavior Analyst Certification Board (BACB).

EDTL:5966 Advanced Topics in Applied Behavior Analysis 3 s.h.
Behavior-change considerations, behavior-change systems, intervention, and issues related to implementation, management, and supervision; devotes specific attention to interventions commonly applied to individuals with developmental disabilities.

EDTL:6015 PhD Seminar: Literacy, Culture, and Language Education 3 s.h.
Exploration of theoretical and epistemological foundations in literacy, culture, and language education; exposure to diverse disciplinary and interdisciplinary foundations that inform literacy education, cultural studies, multilingual education, and social studies education; goal is for students to identify a disciplinary and interdisciplinary focus that will inform their research.

EDTL:6164 Early Literacy Development and Instruction 2-3 s.h.
Understanding of early reading and writing experiences; relationship of reading to other communication areas; knowledge of instructional approaches, techniques, materials, assessment procedures; interrelationship of home and school experiences; identification of current and crucial issues and relevant research.

EDTL:6165 Reading and Writing Across Intermediate Grades 3 s.h.
Issues in teaching, learning, and assessment of students grades 4-9; fostering positive literate identities, literacy engagement, strategies for reading, writing, and critically responding to texts in a range of genres and formats and across content areas.

EDTL:6167 Inquiry-Based Curriculum Development in Early Childhood and Elementary Classrooms 3 s.h.
Theoretical and practical organization of developmentally appropriate curricula and teaching methods to promote learning.

EDTL:6171 Advanced Reading Clinic Techniques 2-3 s.h.
Instructional procedures for children and early adolescents with severe learning problems in reading; causes of reading disorders; educational prognosis for severely disabled readers. Corequisites: EDTL:6172.

EDTL:6172 Advanced Reading Clinic Practicum 2-3 s.h.
Practice in selecting and using instructional procedures that address the needs and interests of struggling literacy learners, with emphasis on teaching to students' strengths; how to fit clinical teaching techniques into an overall literacy instructional program. Corequisites: EDTL:6171.

EDTL:6267 Seminar: Current Issues in Art Education 3-4 s.h.
Analysis of literature in art education and related disciplines. Same as ARTE:6267.

EDTL:6293 Individual Instruction arr.

EDTL:6315 MA Seminar: English Education arr.
Significant developments in English education; primary and collateral readings. Same as ENGL:6315.

EDTL:6393 Master's Thesis arr.

EDTL:6400 Fundamentals of Second Language Assessment 3 s.h.
How to write language tests; discussion of fundamental issues in development of new tests or selection of existing tests. Same as SLA:6503.

EDTL:6402 Second Language Program Management 3 s.h.
Preparation for supervising, administering foreign language programs at all levels; for precollegiate language teachers and graduate students. Same as SLA:6504.

EDTL:6403 Language Policy and Planning 3 s.h.
Theoretical foundations, research methods, and findings in language policy and planning research; consideration of local, national, and international language policies; multiple disciplinary perspectives on language policy including linguistics, political science, law, and sociology.

EDTL:6409 Cultural Curriculum 3 s.h.
Culture's role in foreign/second language teaching; definition, pedagogy, assessment, and materials that allow culture to be taught and learned. Same as SLA:6970.

EDTL:6480 Graduate Seminar in Multilingual Education 3 s.h.
Theoretical perspectives of pivotal research issues at the forefront of foreign language education; systems available to foreign language professionals for disseminating research. Same as SLA:6500.

EDTL:6483 Multilingual Education and Applied Linguistics 3 s.h.
Introduction to research in language teaching and learning, drawing on theories and research in applied linguistics, sociolinguistics, anthropology, and psychology; students gain understanding of fundamentals in second language acquisition, educational linguistics, applied linguistics, and methods used in teaching and learning second/foreign languages; applications and implications of research considered when reviewing multilingual education policy and practice. Same as ASIA:6483, SLA:6506.

EDTL:6484 Bi/Multilingual Literacies 3 s.h.
Critical sociocultural perspectives on literacy, including dynamic literacies people practice to read the word and the world; examination of theoretical, practical, and empirical research that discusses the political, ideological, cultural, and historical nature of bi/multilingual literacy learning. Same as SLA:6501.

EDTL:6497 Principles of Course Design for Second Language Instruction 3 s.h.
Contemporary views of second language curriculum design; guidelines necessary for the creation of prototypical curriculum units to be transposed into classroom-ready forms; for individuals interested in foreign language materials development. Same as SLA:6502.

EDTL:6536 Teaching of Geometry 2-3 s.h.
Current developments in teaching middle school/junior high and high school geometry; selection, organization of content; research on teaching and learning.

EDTL:6563 STEM Through Mathematical Modeling 3 s.h.
Prepares potential STEM teachers or in-service teachers who want to develop integrated STEM learning environments to learn mathematical modeling as an interdisciplinary instructional approach; mathematical modeling practice to learn and teach mathematics, science, engineering, and technology focused on students' understanding of new concepts from an individual knowledge basis; engagement in problem-based learning where individuals develop conjectures, critique arguments, and revise ideas to reach conclusions; students will understand how people learn new concepts and how teachers should provide adequate learning environments for students to learn and understand the core concepts of STEM.

EDTL:6570 Foundation of School STEM Curriculum 3 s.h.
Elementary and secondary background developments in school and science, technology, engineering, and mathematics (STEM) curriculum; definitions, historical perspectives, reform, theories of knowledge, implementation, evaluation, international perspectives, issues in STEM curriculum.

EDTL:6600 Individual Projects in Music Education 1-2 s.h.
Projects of special concern to individual music teachers in public schools.

EDTL:6757 Learning in the Science Classroom 2-3 s.h.
Assumptions about learning and about learning theories and their impact on pedagogical actions; how some concepts are planned and implemented.

EDTL:6758 Writing in the Science Classroom 3 s.h.
Literacy in the science classroom; theoretical and pedagogical perspectives; practical classroom activities that lead to effective writing and increased learning.

EDTL:6759 Advanced Pedagogy 3 s.h.
Theoretical and practical perspectives on pedagogy; how to assess practice, provide feedback, and build learning pathways for teachers.

EDTL:6761 STEM Research and Leadership Seminar 3 s.h.
Broad overview of research supporting new and innovative teaching practices in STEM disciplines and integrated STEM learning; focus on relevant journals related to STEM learning and teaching; students will summarize, critique, and discuss a variety of research perspectives and articles and describe how the information relates to their current teaching; students explore ways to improve their STEM pedagogical and instructional practices and methods for assessing critical student outcomes; students develop awareness of research that provides a foundation for effective STEM teaching and learning and strategies for implementing research supported practices in STEM learning contexts of all types.

EDTL:6762 STEM Experiential Learning 3 s.h.
Overview of research supporting new and innovative teaching practices in STEM disciplines and integrated STEM learning; focus on problem-based and experiential learning curriculum, instruction, and assessment by engaging in authentic experiences and reflecting on how these influence practice and student learning; facilitates ability to solve real world STEM problems of interest to students and community through engagement with community partners; assists students to acquire and demonstrate 21st-century competencies the STEM workplace identifies as critical; provides authentic, meaningful, and cross-curricular experience in facilitating student engagement in real-world situations.

EDTL:6764 STEM Extracurricular Experience and Capstone 6 s.h.
Engages teachers in STEM experience outside the traditional classroom; provides 90-hour STEM inclusive experience coupled with a capstone project; engagement with STEM community leaders, business partners, or outreach leaders to develop a plan for participation in and investigation of a STEM related experience; may work with a STEM extracurricular activity in a school or university, a STEM related business or industry partner, or a STEM related grant funded project through a university; course completion is accomplished through a capstone sharing of their experience, how the experience has solidified their understanding of STEM, and how the experience will impact their classroom activities.

EDTL:6765 STEM Independent Research 3 s.h.
Opportunity to develop an independent research project and explore a STEM education question of personal interest; students design and carry out research in an authentic STEM learning environment, collect and analyze data, develop claims and conclusions based on their research, present findings, and develop a plan for utilizing findings to improve STEM education learning environments. Prerequisites: EDTL:6761.

EDTL:6766 Physical Science Topics in STEM Education 3 s.h.
Increase knowledge of physical science content in a form that is relevant to education standards, such as Next Generation Science Standards (NGSS), and connected to engaging and contemporary issues in physical science; weekly expectations differentiated to provide opportunities for deepening knowledge of science; students gain insight into teaching science and work together to think critically on the conceptual basis of subject matter appropriate for learners in their context; for educators at all levels (e.g., elementary, secondary, informal settings).

EDTL:6767 Systems Thinking in Biology and Integrated STEM Education 3 s.h.
Preparation for potential STEM or in-service teachers who want to design integrated STEM learning environments and cultivate students' systems thinking skills; emphasis on computational modeling environments in biology education; how to craft problems based on principles derived from primary literature on systems thinking and STEM educational research; no programming experience required or expected. Recommendations: general background in biology, chemistry, and physics.

EDTL:6833 History and Foundations of Social Studies Education 3 s.h.
Historical, philosophical, social foundations of social studies education; recent debates over content and instructional processes; student research proposals.

EDTL:6840 Theories and Perspectives in Global Education 3 s.h.
Examination of theories and perspectives within global education that help to understand historical and contemporary social, political, economic, and cultural issues; relationship to international studies, international education, global cultures, human rights, social justice, and other areas; interaction with global educators who conduct research and/or teach in institutes of higher education around the world.

EDTL:6841 Attaining a Global Perspective 2-3 s.h.
Rationales, conceptualizations, and themes in global perspectives in education, implications for curriculum change; elements of perspective consciousness, cultural universals, cultural diversity, cross-cultural awareness, global systems, global history, global issues; application and evaluation of ideas within fields of study and varied teaching situations.

EDTL:6906 Practicum with Exceptional Persons arr.
Practicum experience with students with disabilities; experiences differ depending upon student's program of study.

EDTL:6909 Seminar: Graduate Supervised Teaching 1 s.h.
For students enrolled in graduate student teaching practicum. Requirements: special education major.

EDTL:6936 Special Education Administration 3 s.h.
Builds a foundation of dispositions, knowledge, and skills for tasks performed by directors of special education, building leaders, and administrators, when supervising needs of special education students and economically and socially deprived students; knowledge and application of legal aspects, individual educational programs, and continuum of academic and social/emotional behavior supports; for prospective school administrative personnel. Same as EPLS:6236.

EDTL:6950 Strategist I Student Teaching: Elementary arr.
Student teaching in an elementary mild and moderate special education program.

EDTL:6951 Strategist I Student Teaching: Secondary arr.
Student teaching in a secondary mild and moderate special education program.

EDTL:6953 Strategist II Student Teaching: Elementary arr.
Student teaching in K-8 learning disabilities or behavior disorders.

EDTL:6954 Strategist II Student Teaching: Secondary arr.
Student teaching in secondary learning disabilities or behavior disorders.

EDTL:7004 Schooling in the United States 3 s.h.
Governance, finance, and policy structures that have influenced teaching and learning in public schools.

EDTL:7008 Seminar: Research and Current Issues arr.
Review of literature, critical analysis of reported research, and study of current issues and problems for a specific curricular area; topics vary.

EDTL:7015 PhD Seminar in Language, Literacy, and Culture arr.
Historical, recent research and theory in literacy education; topics vary.

EDTL:7033 Seminar on Teacher Education 3 s.h.
History, structure, and politics of teacher education; current practice and agendas for reform; new developments in teacher assessment.

EDTL:7040 Advanced Topics in Teaching and Learning arr.
Topics vary.

EDTL:7070 Qualitative Research Methods in Teaching and Learning 3 s.h.
Conceptual and practical exploration of qualitative research design methods, including data collection, analysis, and reporting; understanding proposal writing.

EDTL:7071 Critical Discourse Analysis in Educational Research 3 s.h.
Critical discourse analysis (CDA) as theory and method; social and power relations, identities, and knowledge through written, visual, and spoken texts in social settings, such as schools, families, communities; theoretical and methodological traditions of CDA in educational research; critical approaches to analyzing spoken, written, and visual texts. Prerequisites: EDTL:7070 or PSQF:7331 or EPLS:7373 or CSED:7338.

EDTL:7072 Advanced Methods of Literacy Research: Qualitative Data Analysis and Reporting 3 s.h.
Advanced course in traditional and contemporary qualitative data analysis methods and varied forms of reporting to understand, critique, and conduct research about literacy learning and teaching. Prerequisites: CSED:7338 or EDTL:7070 or EPLS:7373 or PSQF:7331.

EDTL:7073 Ethnographic Methods, Theories, and Texts 3 s.h.
Practical and theoretical background for conducting ethnographic field studies in literacy, schooling, language, or a field of student's choice; methods, methodologies, and perspectives from anthropology, sociology, folklore, journalism, literary criticism, cultural, critical, and composition theory; read historical and contemporary ethnography, consider ethnographic forms of expression (films, graphics, fiction, poems); roles, responsibilities, and ethics of writer, reader, viewer, and informant; tools, methods, and writer's techniques to develop an ethnographic portfolio. Prerequisites: PSQF:7331 or EDTL:7070 or CSED:7338 or EPLS:7373. Same as CNW:7073.

EDTL:7092 Field Service Project arr.
Individual field service project in a specific curricular area; for advanced students.

EDTL:7093 Research Project arr.
Individual research projects in a specific curricular area; for advanced students.

EDTL:7165 Reading Clinic: Supervision arr.
Supervised experience in guiding and improving teacher performance in clinical practicums.

EDTL:7380 Practicum in College Teaching arr.
Supervised college teaching experience in courses related to major academic areas; collaboration with faculty course instructors.

EDTL:7385 Teaching and Learning in Higher Education 3 s.h.
Current theoretical and empirical literature on teaching and learning in higher education; focus on development of effective teaching practice. Same as CSED:7385, EPLS:7385, GRAD:7385, PSQF:7385.

EDTL:7405 Research Methods in Literacy, Culture, and Language Education 3 s.h.
Overview of common research methods and paradigms used to study literacy, culture, and language teaching and learning and related fields; discussing readings and other texts by contemporary researchers; processing and applying concepts from qualitative, quantitative, and mixed methods research approaches; considering critical perspectives on educational research methods; designing a rigorous research study on a topic of student's choice; speaking and writing with confidence about research methods used in other studies.

EDTL:7406 Proposal Writing for Second Language Research 3 s.h.
Procedures and techniques for writing research proposals at the doctoral level; written research proposal dealing with a question in second language teaching and learning.

EDTL:7410 Mixed Methods Research 3 s.h.
Introduction to mixed methods research in education; knowledge and skills necessary to conduct mixed methods study; history and language of mixed methods research; identifying and processing arguments for and against mixed methods research; critical and justice-oriented perspectives on mixed methods research; strengths and weaknesses of published mixed methods studies; application of one or more mixed methods research designs to a research proposal. Requirements: formal introduction to quantitative and qualitative research methods, and familiarity with basic steps of research process. Recommendations: direct experience conducting research studies not required. Same as EPLS:7392.

EDTL:7493 PhD Thesis arr.

EDTL:7535 Seminar: Research in Mathematics Education arr.
Analysis of current research, research methodology, curriculum developments in mathematics education; topics vary.

EDTL:7600 Seminar: Current Topics in Music Education 1-3 s.h.
Major areas of professional and research interest.

EDTL:7640 Advanced Research in Music Education 3 s.h.
Design, performance, analysis, and reporting of music research.

EDTL:7707 Research: Science Education arr.
Planning of individual research projects by MS and PhD students.

EDTL:7750 Seminar: Science Education 0-2 s.h.
Discussion of completed faculty and doctoral candidates' research, national issues, program features.

EDTL:7751 Advanced Qualitative Data Analysis 3 s.h.
Varied approaches to qualitative data analysis and philosophical foundations; analysis and interpretation of qualitative data; writing qualitative research findings. Prerequisites: EPLS:7373 or EDTL:7070 or PSQF:7331 or CSED:7338.

EDTL:7755 Independent Study in Science Education Research 2-3 s.h.

EDTL:7756 Research Apprenticeship in Science Education 3 s.h.
Practical experiences in science education research in a collaborative, team-oriented environment; apprenticeship model of instruction in which students' participation in authentic tasks and their learning are mutually constitutive; engagement in actual research practices to produce an empirically based product; development of expertise with some aspect of research methodology determined by instructor; for graduate students with interests in research or development based in K-16 contexts.

EDTL:7932 Field Service Project in Special Education Internship arr.
Part- or full-time experience as an intern in school districts or area education agencies; develops skills in supervision and administration of special education.

EDTL:7943 Proseminar: Issues, Trends, and Research in Special Education 2-3 s.h.
Conceptual and practical development of research across special education and related disciplines; empirical review of the literature; focus on professional writing skills.

EDTL:7944 Proseminar: Issues, Trends, and Research in Special Education II 2-3 s.h.
Recent research from a variety of special education areas reviewed by students; simulated comprehensive examinations. Prerequisites: EDTL:7943.

EDTL:7945 Current Issues and Trends in Learning Disabilities 3 s.h.
Readings and discussions of current issues and trends in learning disabilities (e.g., definition, prevalence, interventions, subtyping, assessment).

EDTL:7948 Contemporary Research in Behavioral Disorders 3 s.h.
In-depth analysis of current research in behavioral disorders; emphasis on evaluating its methodology and contribution to the field.

EDTL:7952 Seminar: Behavioral Assessment and Evaluation 3 s.h.
Broadens skills of graduate students who engage in research with exceptional persons; research designs are usually taught in the Department of Psychological and Quantitative Foundations, but because of the nature of handicapping conditions and the low incidence of some handicaps, the single-subject design yields better research information. Same as PSQF:7352.

EDTL:7953 Seminar: Single Subject Design Research 3 s.h.
Reviews of single subject research, development of student proposals; focus on special education, applied research.

Science Education Courses

SIED:3001 Introduction to Museum Studies 3 s.h.
Overview of museum history, function, philosophy, collection, and curatorial practices; governance and funding issues; exhibition evaluation and audience studies; examples from Stanley Museum of Art, Museum of Natural History, Old Capitol Museum, and Medical Museum. GE: Social Sciences. Same as ANTH:3001, EDTL:3001, MUSM:3001.

SIED:4102 Societal and Educational Applications of Earth Science and Environmental arr.
Major ideas and principles of earth and environmental sciences; emphasis on common applications in today's world.

SIED:4103 Societal and Educational Applications of Biological Sciences arr.
Basic conceptual themes of biology, how they have been derived; emphasis on a current social issue related to biology.

SIED:4105 Societal and Educational Applications of Physical Sciences arr.
Major ideas of physics and how they have been derived; emphasis on how such ideas affect modern society.

SIED:4106 Societal and Educational Applications of Chemical Concepts arr.
Principles of chemistry as applied in industry, communication, daily living.

SIED:4110 Exploring the Geology, Mining History, and Environmental Issues of the Colorado Rockies 3-4 s.h.
Basic concepts of physical geology, historical, and environmental geology of the Rocky Mountains in context of mineral exploration, mining, and environment; collection of a teaching suite of basic igneous, sedimentary, and metamorphic rocks and rock forming minerals; scientific/educational photography, field inquiry, and curriculum development projects; students spend 10 days probing the mountains of Colorado for clues to its geologic past including mountains, seas, and volcanic activity; knowledge is tested in the field along with connecting the geology of Colorado with future teaching employment locations.

SIED:4115 Directed Study arr.

SIED:4135 The Nature of Science 3-4 s.h.
Ideas on understanding and ways of thinking that are essential in a world shaped by science, technology, engineering, and mathematics; focus on increasing science literacy by examining the nature of science; comparison of characteristics specific to individual science disciplines; identification of great episodes and debates in history of science and habits that are essential for science literacy; scope and sequence of content and process skills for K-12 curriculum, instruction, and assessment.