Courses for Curriculum and Instruction

Elementary Education Courses

CEE515 Science in Early Childhood and Elementary School
Hours 3
Designed to expand knowledge and competencies of early childhood and elementary teachers of science with specific focus on current standards, research, and inquiry models of instruction.

CEE516 Social Science in Early Childhood and Elementary School
Hours 3
The focus is on current trends in early childhood and elementary social studies, with particular attention to innovative instructional modes and to relating learning to the learners' social environment.

CEE517 Lang Arts In Elem Sch
Hours 3
Designed to extend and strengthen the knowledge and competencies of experienced teachers of communication arts and skills in the elementary school.

CEE525 Issues Trends in Early Childhood and Elem School Science
Hours 3
Focus on current research and trends in early childhood and elementary science with respect to historical, political, and socio-cultural contexts.

CEE526 Implementing Early Childhood and Elementary Social Studies
Hours 3
The focus is on considering and applying to one’s own classroom the research base of investigating social studies curricula and instruction in early childhood and elementary education.

CEE530 Modern Elementary School Programs
Hours 3
The evolving elementary school and its program, with emphasis on analysis of current trends that directly affect modern school practices in a societal context.

CEE532 Early Childhood and Elementary School Curriculum
Hours 3
The purpose of this course is to focus on historical, current trends, and projective perspectives that influence the evolving early childhood and elementary school curriculum framework.

CEE544 Current Trends and Research in Early Childhood Education
Hours 3
Students will review current trends and research related to early childhood education, including curriculum, assessment, play, quality, and family engagement. Students will synthesize and apply research and discuss implications for working with children birth through age eight.

CEE550 Intro to Teaching Early Childhood and Elementary School Science
Hours 3
Introduction to the teaching of science. Current research is emphasized supporting best instructional practices in science.

CEE565 Classics & Modern Literature for Early Childhood and Elementary Education
Hours 3
Designed to extend and strengthen the knowledge and competencies of experienced teachers in the following areas: major developments in literature for children, genres of children’s literature, and effective methods of helping early childhood and elementary children enjoy and use literature.

CEE570 Teach Reading in the Elementary School
Hours 3
The course provides a foundation in the materials and methods of teaching elementary reading with an emphasis on development, assessment, and instruction for individual and small groups of students. Intensive field experience is required.
Prerequisite(s): CRD 369, CEE 320, CEE 491 and MUE 385
Prerequisite(s) with concurrency: CEE 365, CEE 401, CEE 492, CEE 582 and CEE 595

CEE574 Guiding Early Childhood and Elementary Pupil Learning
Hours 3
Focuses on understanding how students learn, what physiological and environmental factors influence learning and how teachers can facilitate learning using brain-compatible learning. Included are theories-to-applications of brain-based learning research to classroom instructional situations in early childhood and elementary education.

CEE578 Teaching Language Arts in the Early Childhood and Elementary School
Hours 3
Deepening understanding of the materials for teaching of language arts in early childhood and elementary schools with emphasis on planning and implementing a writing program. Intensive field experience. Writing proficiency within the discipline is required for a passing grade in the course.

CEE580 Concepts of Early Childhood and Elementary School Mathematics
Hours 3
Focuses on the current research in P-6 mathematics education concerning how children learn mathematics.

CEE581 Early Childhood and Elementary Math Curriculum Research
Hours 3
Students learn the role and influence of mathematics curriculum and its interconnectedness to instruction and reflect about school, district, state and/or national curriculums. Explore current issues with US mathematics curriculum and unpack curriculum into intended, enacted, and assessed components for early childhood and elementary education.

CEE582 Teaching Mathematics to Early Childhood and Elementary Students
Hours 3
This course prepares students to effectively teach mathematics in P-6. Emphasis is on the current research in mathematics education.
Courses for Curriculum and Instruction

CEE594 Problems
Hours 1-6
Opportunities to study or work independently on topics or projects of individual concern. Credit is based on the nature and degree of student involvement.

CEE595 Practicum in Early Childhood and Elementary Education
Hours 3
Supervised opportunities to apply knowledge and skills in a P-6 setting. Credit is based on the nature and degree of student involvement. Admission to TEP Program is required.
Prerequisite(s): CRD 369, CEE 320, CEE 491, and MUE 385
Prerequisite(s) with concurrency: CEE 365, CEE 401, CEE 492, CEE 570, and CEE 582

CEE596 Advanced Practicum
Hours 3
A field-based course providing graduate students with opportunities to practice authentic classroom application of various content areas in P-6 education. Admission to TEP Program is required.
Prerequisite(s): CEE 365, CEE 492, CEE 570, CEE 582 and CEE 595
Prerequisite(s) with concurrency: CEE 401, CEE 550, CEE 560, CEE 578, CEE 596, and BER 450

CEE597 Internship in Early Childhood Education and Elementary Education
Hours 3-12
Observation, participation, and teaching experiences supervised by selected cooperating teachers in P-6 schools. Additional supervision is provided by College of Education personnel.
Prerequisite(s): CEE 401, CEE 550, CEE 560, CEE 578, CEE 596, and BER 450
Prerequisite(s) with concurrency: EDU 500

CEE598 Non-Thesis Research
Hours 1-3
No description available

CEE616 Adv Soc Studies Elem Sch
Hours 3
The focus is on current trends and research in elementary social studies with particular attention to innovative instructional modes and relating learning to the learner’s social environment.

CEE687 Topical Research Review
Hours 3
Supervised opportunities to apply knowledge and skills in a professional setting. Credit is based on the nature and degree of student involvement.

CEE690 Advanced Seminar
Hours 1-3
In-class opportunities to analyze and discuss current topics, problems, and/or projects of collective concern. Topics vary.

CEE694 Problems
Hours 1-6
Opportunities to study or work independently on topics or projects of individual concern. Credit is based on the nature and degree of student involvement.

CEE695 Practicum
Hours 1-12
Supervised opportunities to apply knowledge and skills in a professional setting. Credit is based on the nature and degree of student involvement.

CEE697 Specialist Degree Res
Hours 1-6
Systematic classroom inquiry is used to engage students in a teacher action research project.
Prerequisite(s): CEE 687

CEE698 Non-Thesis Research
Hours 1-3
No description available

CEE699 Dissertation Research
Hours 1-12
The independent research course partially fulfills required research dissertation hours toward the doctoral degree. The course is conducted under the guidance of the dissertation advisor. Material covered will be of an advanced nature aimed at providing doctoral students with an understanding of the latest research and current developments within the field. Discussion and advisor guidance will be directed towards readings of research articles and development of research methodology, with the aim of producing an original research contribution that represents a novel development in the field, or a novel perspective on a pre-existing topic in the field.

Curriculum and Instruction Courses

CIE523 Teaching Visual Arts
Hours 3
This course will focus on the practice of teaching art education in pre-kindergarten, primary, middle and secondary levels. The theory supporting engaging art education and the available and appropriate tools, strategies and resources will be investigated. Students will develop a working knowledge of art materials and methods appropriate for each level of growth.
Prerequisite(s): CSE 390, EDU 200, SPE 500, CEE 320, BEF 510
Prerequisite(s) with concurrency: CIE 592, CRD 512

CIE524 Improving Visual Arts Instruction
Hours 3
This course will focus on the practice of teaching visual arts education in pre-kindergarten, primary, middle and secondary levels. The theory supporting engaging visual arts education and the available and appropriate tools, strategies and resources will be investigated. Students will develop a working knowledge of art materials and methods appropriate for each level of growth.
Prerequisite(s): CSE 390, EDU 200, SPE 500, CRD 512, BEF 510, CIE 523, CIE 592
Prerequisite(s) with concurrency: EDU 500 and CIE 597
CIE560 Principles in Mathematics Education: Equity & Access Issues
Hours 3
This course explores the principles and foundations of effective, high-leverage mathematics teaching practices and their subsequent impact on students with diverse backgrounds. Teachers, administrators, and/or others are introduced to beliefs, practices, and situations that are related to maximizing student potential and learning opportunities. Access and equity are well-defined, developed, implemented, and assessed for all. This course is for Class B or Class A Educator license.

CIE562 Tesol: Basic Methods
Hours 3
Theories, methods, and strategies for English as a second language that focus on communicative competence and cross-cultural understanding. Admission to TEP Program is required.
Prerequisite(s) with concurrency: CSE 592

CIE567 Improv Foreign Lang Instruct
Hours 3
Critical examination of theoretical perspectives, methods, major issues, and controversies pertinent to teaching foreign language; use of technology in language instruction is a critical component.

CIE575 Teaching Emergent Multilinguals in Public Schools
W
Hours 3
This course explores the pedagogies of transliterary literacies to prepare teachers to serve emergent multilinguals in the U.S. public schools. It offers teacher candidates classroom strategies to make content comprehensive and accessible to emergent multilinguals. Writing proficiency is required for a passing grade in this course. A student who does not write with the skill normally required of an upper-division student will not earn a passing grade, no matter how well the student performs in other areas of the course.

Writing

CIE576 Linguistics Classroom Teachers
Hours 3
This linguistic course enables teachers to understand the basics of how the English language functions. Provides information essential for dealing with students whose native language is not English. Offers useful information about various English dialects as well.

CIE577 Second Language Acquisition
Hours 3
Introduction to and analysis of the main issues and theories in second language acquisition (SLA); students deduce and demonstrate instructional implications.

CIE578 Second Lang Test Assess Evaln
Hours 3
Preparation in the background and skills necessary to construct classroom-based tests, appropriately use published tests, and understand second or foreign language program evaluation.

CIE579 Tch English For Lang Prog/Pol
Hours 3
Theories of language learning, acquiring a second language, and current linguistic theories; emphasis is on programs, policies, and instructional methods of ESL education.

CIE580 Teaching Foreign Languages
Hours 3
Theories, methods, and strategies for foreign language teaching that focus on communicative competence and cross-cultural understanding; use of technology in language education is a critical component. Admission to the TEP Program is required.
Prerequisite(s) with concurrency: CSE 592

CIE582 Dev Util Instr Matrials
Hours 3
No description available

CIE592 Field Work
Hours 1-3
A clinical experience taken concurrently with the methods course and designed to facilitate students’ development of pedagogical skills, effective thinking, and professional problem solving.

CIE597 Elementary/Secondary Internsh
Hours 3-9
Elementary/Secondary Internship.

CIE599 Special Topics in Early Childhood, Elementary, and/or Secondary Education
SP
Hours 1-6
This course, offered on campus or abroad, provides opportunities to engage with topics or projects of collective concern in early childhood, elementary, and/or secondary education. Topics vary. May be repeated. Offered according to demand.
Prerequisite(s): Permission of instructor
Special Topics Course

CIE601 Conceptual Frameworks in Curriculum and Instruction Research
Hours 3
This course focuses on reading, analyzing, and creating conceptual frameworks that warrant research in Curriculum and Instruction. We will also attend to historical and material-discursive aspects of research paradigms that represent different conceptions of the human subject, agency, power, and data.

CIE602 Research on Learning in Curriculum and Instruction
Hours 3
This is a required course for Ph.D. students in Curriculum and Instruction. It aims to build the intellectual capacity needed to generate knowledge in the field of Curriculum and Instruction. It is one of four courses comprising the introductory course sequence for the Ph.D.

CIE605 Teachers and Teaching Practices in Classrooms across the World
Hours 3
The focus of this course is research on teachers and their teaching practice in real classrooms.

CIE606 New Literacies
Hours 3
This course explores and applies theories of new literacies communication, learning, and research.
CIE609 Discourse & Pedagogy
Hours 3
This seminar will provide foundational training for doing discourse analytic work within research of teaching and learning, with a focus on the integration of theory and methodology. Participants will be asked to conduct an analysis of classroom discourse for final evaluation.

CIE610 Effective Teaching
Hours 3
Examination of the knowledge base in effective teaching practice through in-depth study of the research literature on classroom instructional practices and conditions, and on the classroom teacher. Designed specifically for doctoral-level students.

CIE620 Design Res Classrm Teach
Hours 3
The practice and use of reflection and action research with emphasis on developing professional skills in performing and applying research on classroom teaching and learning leading to teacher empowerment and school reform. Designed specifically for doctoral-level students.

CIE621 Writing for Academic Publication
Hours 3
This course will provide doctoral students with information about academic writing and project management. The tools, strategies and resources will be useful as students plan their thesis or dissertation and prepare research for dissemination. Students will learn writing habits, strategies for synthesizing research, and techniques for writing with clarity.

CIE625 Res Sem Science Curriculum
Hours 3
Designed to enable students to understand and synthesize current research and to develop a theoretical framework in the science curriculum for K-12.

CIE626 Res Sem Social Studies Curric
Hours 3
Designed to enable students to understand and synthesize current research and to develop a theoretical framework in social studies education for K-12.

CIE627 Second Language Literacy
Hours 3
This course is designed to provide the student with an introduction to the major issues in research and instruction in second language (L2) literacy (reading and writing). An emphasis in this course is on literacy as a cognitive skill. The psycholinguistic processes of reading and writing in a second language will be addressed.

CIE630 Curric Classroom Teacher
Hours 3
This course discusses the major issues in curriculum design and implementation for the classroom teacher. Designed specifically for doctoral-level students.

CIE631 Research Apprenticeship in Curriculum and Instruction
Hours 1-6
This is an elective course for doctoral students in curriculum and instruction education. The course is designed to introduce novice scholars to a variety of research practices in the field. Students will participate in an existing research project directed by a faculty member, with permission and under the supervision of that faculty member.

CIE632 Teaching Apprenticeship in Curriculum and Instruction
Hours 1-6
This is an elective course for doctoral students in curriculum and instruction education. The course is designed to introduce novice scholars to a variety of teaching practices in the field. Students will participate in a teaching project directed by a faculty member (with permission and under the supervision of that faculty member).

CIE633 Supervision Apprenticeship in Curriculum and Instruction
Hours 1-6
The course is designed to apprentice novice scholars in a variety of supervision practices in the field. Students will participate in a supervision project directed by a faculty member (with permission and under the supervision of that faculty member).

CIE634 Research Apprenticeship in Early Childhood Education and Social-Emotional Learning
Hours 1-6
This course is designed to apprentice novice scholars in a variety of research practices. Students will participate in an existing research project (with permission and at the direction of faculty).

CIE635 Teaching Apprenticeship in Early Childhood Education and Social-Emotional Learning
Hours 1-6
This is an elective course for doctoral students in the PhD program. The course is designed to apprentice novice scholars in a variety of teaching practices related to early childhood education and social-emotional learning. Students will participate in planning, teaching, and assessment as directed by a supervising faculty member.

CIE636 Supervision Apprenticeship in Early Childhood Education and Social-Emotional Learning
Hours 1-6
The course is designed to apprentice novice scholars in a variety of supervisory practices related to early childhood education. Students will participate in supervisory activities directed by a faculty member.

CIE637 Research Apprenticeship in Elementary Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of research practices in the field. With the permission of a faculty member, students will participate in an existing research project supervised by a faculty member.

CIE638 Teaching Apprenticeship in Elementary Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of teaching practices in the field. With the permission of and under the supervision of a faculty member, students will participate in a teaching project.
CIE639 Supervision Apprenticeship in Elementary Education
Hours 1-6
The course is designed to apprentice novice scholars under the supervision of a faculty member and in a variety of supervision practices in this field. The permission of a faculty member is required for enrollment.

CIE640 Sem Teachr Educ Program
Hours 3
The course focuses on issues, problems, trends, and research associated with undergraduate and graduate teacher education and certification programs in Alabama, the U.S., and the world. Designed specifically for doctoral-level students.

CIE644 Student Teach Supervision
Hours 3
Organization and administration of student-teaching programs and methods of supervising student-teaching in schools. Designed specifically for doctoral-level students.

CIE645 Prof Cont: Tching & Lrning Com
Hours 3
Research-based focus using theoretical frameworks to examine and analyze the professional development continuum.

CIE646 Research Apprenticeship in Social Studies Education
Hours 1-6
The course is designed to apprentice novice scholars under the supervision of a faculty member, using a variety of research methods in a variety of settings. The permission of a faculty member is required for enrollment.

CIE647 Teaching Apprenticeship in Social Studies Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of teaching practices. Students will participate in a teaching project directed by a faculty member. The permission of a faculty member is required for enrollment.

CIE648 Supervision Apprenticeship in Social Studies Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of supervision practices. Students will participate in a supervision project directed by a faculty member. The permission of a faculty member is required for enrollment.

CIE651 Research Apprenticeship in Literacies and Languages Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of research methods and practices. Students will participate in an existing research project directed by a faculty member. The permission of a faculty member is required for enrollment.

CIE652 Teaching Apprenticeship in Literacies and Languages Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of teaching practices. Students will participate in a teaching project directed by a faculty member. The permission of a faculty member is required for enrollment.

CIE653 Supervision Apprenticeship in Literacies and Languages
Hours 1-6
The course is designed to apprentice novice scholars in a variety of supervision practices relevant to this field. Students will participate in a supervision project directed by a faculty member. The permission of a faculty member is required for enrollment.

CIE656 Sem For Language Eductn Resear
Hours 3
Examination and critical analysis of a wide range of perspectives from the professional literature on teaching and learning a foreign language.

CIE660 Cognitive Perspectives
Hours 3
The course focuses on systematic descriptions and analysis of major learning theories for classroom application. The intent is to contribute education insight toward more effective teaching through cognitive processes.

CIE661 Research Apprenticeship in Mathematics Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of research practices relevant to the field of mathematics education. Students will participate in an existing research project directed by a faculty member. The permission of a faculty member is required for enrollment.

CIE662 Teaching Apprenticeship in Mathematics Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of teaching practices relevant to the field of mathematics education. Students will participate in an existing teaching project directed by a faculty member (with permission and under the supervision of that faculty member).

CIE663 Supervision Apprenticeship in Mathematics Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of supervision practices relevant to the field of mathematics education. Students will participate in an existing supervision project directed by a faculty member (with permission and under the supervision of that faculty member).

CIE670 Critical Inquiry Curric Pedago
Hours 3
Examinations of different conceptualizations of curriculum and pedagogy in K-12; emphasis on critical theory and postmodern theory and critique.

CIE671 Research Apprenticeship in Science Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of research practices in science education. Students will participate in an existing research project directed by a faculty member (with permission and under the direction of that faculty member).

CIE672 Teaching Apprenticeship in Science Education
Hours 1-6
Students will participate in teaching a science education course with a faculty member (with permission and under the direction of that faculty member).
CIE673 Supervision Apprenticeship in Science Education
Hours 1-6
The course is designed to apprentice novice scholars in the supervision of field experiences. Students will be supervised and mentored by a faculty member, with faculty permission.

CIE675 Theory and Research on Emergent Multilinguals
Hours 3
This course explores the current research base and theoretical frameworks for doctoral students to understand the pedagogies of transliteracies and study emergent multilinguals in the U.S. public schools.

CIE680 Sem in Math Educ Research
Hours 3
Designed to enable students to understand and synthesize current research and to develop a theoretical framework in mathematics education.

CIE681 Research Apprenticeship in STEM Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of research practices in the field. Students will participate in an existing research project directed by a faculty member. Faculty permission is required.

CIE682 Teaching Apprenticeship in STEM Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of teaching practices. Students will participate in a teaching project directed by a faculty member. Faculty permission is required.

CIE683 Supervision Apprenticeship in STEM Education
Hours 1-6
The course is designed to apprentice novice scholars in a variety of supervision practices in the field. Students will participate in a supervision project directed by a faculty member. Faculty permission is required.

CIE686 Research on Science Teaching
Hours 3
Principles and practices of research into science teaching with a focus on building researchers’ professional identities in the field. Topics include the field-specific nature, purposes, methods, rhetoric and impact of research into science teaching.
Prerequisite(s): BER 600, BER 631, and BER 640. Instructor Permission required.

CIE693 Workshop
Hours 1-6
In-class opportunities to study or work on topics or projects of collective concern. Topics vary. May be repeated. Offered according to demand.

Reading Education Courses

CRD510 Expanding Reading
Hours 3
A comprehensive study of the major factors involved in teaching reading at the intermediate grade levels. Techniques for teaching word recognition and comprehension skills are studied extensively.

CRD511 Beginning Reading in Pre-K and Primary Grades
Hours 3
Attends to the theory and practice of beginning reading; key areas of study include diagnostic and evaluative procedures and the organization and implementation of appropriate instruction for P-6. A field component is required.

CRD512 Impr Read Second Schools
Hours 3
A comprehensive study of the major components involved in literacy instruction at the secondary level. A field component is required. This course should be taken concurrently with the content methods course and CSE 592.

CRD569 Introduction to Literacy Education
Hours 3
This course provides an overview to the foundations of literacy development and instruction grades PK-12.

CRD590 Seminar in Literacy Coaching
Hours 3
A comprehensive study of the major theories of and components involved in providing professional development in literacy to teachers and schools.

CRD593 Practicum in Literacy Coaching
Hours 3
This course provides students with the ability to implement the knowledge base of current research in coaching teachers’ literacy instruction by conducting literacy coaching and literacy professional development in P-12 schools.

CRD595 Practicum in Reading
Hours 1-12
Provides graduate students supervised opportunities to apply knowledge and skills in primary grade settings (preschool-2nd).
Prerequisite(s): Corequisites: CRD 510, CRD 511, and CRD 512
CRD653 Foundations of Literacy Education P-12
Hours 3
This course explores multiple theories of literacy from a variety of perspectives and lenses. Additional areas of emphasis include a comprehensive study of the theoretical foundations and the history of literacy development and instruction in PK-12 settings, non-traditional settings (e.g. out of school contexts), and social contexts.
Prerequisite(s): Permission of the instructor.

CRD654 Re-envisioning Reading Assessment and Instruction
Hours 3
Provides advanced study of theoretical perspectives of diagnostic methods and materials for P-12 students at risk of reading failure.

CRD659 Advanced Seminar Crd
Hours 1-3
Provides students with a knowledge base of the relationship between theory, research and practice in regard to K-12 literacy education.

CRD693 Advanced Workshop
Hours 1-3
In-class opportunities to study or work on topics or projects of collective concern. Topics vary. May be repeated.
CRD695 Adv Practicum Readg Education
Hours 3
Provides graduate students supervised opportunities to apply knowledge and skills in intermediate grade settings (3rd-6th).
Prerequisite(s) with concurrency: CRD 510. and and Corequisite: CRD 654
CRD696 Adv Reading Specialist Practic
Hours 3
Provides reading specialist graduate students supervised opportunities to apply knowledge and skills in middle school and high school settings (7th-12th).
Prerequisite(s) with concurrency: CRD 654

Secondary Education Courses

CSE502 Building Humanizing Classroom Communities in Secondary Schools
Hours 3
A required course for candidates in secondary teaching programs that will focus on classroom management and building humanizing classroom communities in secondary classrooms. It will focus on aspects of engaged learning environments, positive responses to challenging behavior, classroom expectations and routines, building connections between home and school, and accountability and responsibility among learners.

CSE530 Mod Sec School Program
Hours 3
The evolving secondary school and its program, with emphasis on analysis of current trends that directly affect modern school practices in a societal context.

CSE532 Secondary Sch Curric
Hours 3
The evolving secondary school curriculum, from historical, current trends, and projective perspectives.

CSE555 Adolescent Literature
Hours 3
An introduction to literature appropriate for the adolescent reader; reading patterns and major concerns of adolescents.

CSE563 Improv Eng Instr
Hours 3
Principles of learning applied to concepts, skills, attitudes, and problem solving in English and speech; diagnosis, enrichment, remedial teaching, and evaluation.

CSE564 Improv Soc Sci Instr
Hours 3
Exploration and examination of methods and materials for improving social studies instruction. Focuses on teaching for diverse learners, constructivist methods, critical thinking, interdisciplinary teaching, and various technologies as they apply to secondary social studies classrooms.

CSE565 Improv Science Instr
Hours 3
Principles of learning applied to concepts, skills, attitudes, and problem solving in science; diagnosis, enrichment, remedial teaching, and classroom evaluation, and application and evaluation of technologies.

CSE566 Principles of Mathematics Education: Teaching, Learning & Curriculum
Hours 3
Principles of learning applied to concepts, skills, attitudes, and problem solving; proper use and evaluation of teaching aids; construction and utilization of teaching instruments; and examination and exploration of alternative assessment strategies and technologies for use in secondary mathematics classrooms.

CSE569 Pedagogical Grammar
Hours 3
Exploration of structural, transformational, and traditional approaches to teaching grammar.

CSE570 Teaching Writing 6-12
Hours 3
This course is designed to prepare prospective and current English teachers to successfully teach and evaluate writing in grades 6-12.

CSE574 Guiding Early Childhood and Elementary Pupil Learning
Hours 3
Focuses on understanding how students learn, what psychological and environmental factors influence learning, and how teachers can facilitate meaningful classroom instructional learning through insights into brain compatible learning, included are theories-to-applications of brain-based learning research to classroom instructional situations in early childhood and elementary education.

CSE575 Principles of Mathematics Education: Tools, Technology, Assessment
Hours 3
This course focuses on the teaching secondary mathematics with the use of new and emerging technologies. It explores the appropriate use of technologies to enhance conceptual understanding and problem solving in mathematics and aims to to develop classroom lessons and assessments for a technology classroom.

CSE576 Improving Science Teaching
Hours 3
Examination and evaluation of emerging and existing technologies specific to secondary science teaching. Students will grow their capacity to employ technologies to plan, enact, and access science teaching and learning.

CSE579 Teach Sec School English
Hours 3
Methods and media essential to effective instruction in English in the secondary school.
Prerequisite(s) with concurrency: CSE 592, CRD 512, BER 550

CSE580 Teach Sec Sch For Lang
Hours 3
Theories, methods, techniques, and essential media for teaching foreign languages effectively in the secondary school. Admission to TEP Program is required.
Prerequisite(s) with concurrency: CSE 592 OR CRD 512
CSE583 Teach Sec School Math  
Hours 3  
Methods, media, and techniques of teaching mathematics in the secondary school, including selected topics in mathematics and exploration and examination of various technologies for use in secondary mathematics classrooms, including, but not limited to, calculators and various computer software.  
Prerequisite(s): CSE 406 with a minimum passing grade of C-  
Prerequisite(s) with concurrency: CSE 592, CRD 512  

CSE585 Advanced Teaching Inquiry in Secondary Social Studies  
Hours 3  
This course is designed to assist students’ understanding of and application of powerful, inquiry-based strategies to the design of meaningful 21st century social studies instruction and assessment.  
Prerequisite(s): TEP  

CSE586 Teach Sec School Science  
Hours 3  
Methods and technologies essential to effective instruction in science in the secondary school.  

CSE587 Teach Sec School Soc Sci  
Hours 3  
Theories and methods of teaching social studies in secondary schools, including examination and exploration of instructional materials, various technologies, constructivist methods, and assessments.  

CSE592 Field Work  
Hours 1-3  
A clinical experience taken concurrently with the methods course and designed to facilitate students’ development of pedagogical skills, effective thinking, and professional problem solving.  
Prerequisite(s): Unconditional admission to the Teacher Education Program (TEP)  

CSE593 Workshop  
Hours 1-3  
In-class opportunities to study or work on topics or projects of collective concern. Topics vary. May be repeated.  

CSE594 Problems  
Hours 1-6  
Opportunities to study or work independently on topics or projects of individual concern. Credit is based on the nature and degree of student involvement.  

CSE595 Practicum  
Hours 3-6  
Focuses on analysis and performance of teaching strategies and the evaluation of teaching-learning problems.  

CSE597 Internship  
Hours 3-12  
Full-time internship as a teacher in the major teaching field.  
Prerequisite(s): CSE 579 OR CSE 580 OR CSE 583 OR CSE 586 OR CSE 587 or CIE 580 OR CIE 582  

CSE598 Non-Thesis Research  
Hours 1-6  
No description available  

CSE663 Sec School English  
Hours 3  
Literature, research, and content in English and speech; current trends; experimental programs; gradation or sequence of subject matter; criteria for program evaluation; and basic issues.  

CSE664 Sec Sch Social Science  
Hours 3  
Focuses on curriculum and research in social studies education, including materials development and current issues in the field.  

CSE665 Sec School Science  
Hours 3  
Literature, research, and content in science; current trends; experimental programs; gradation of subject matter; criteria for program evaluation; and basic issues.  

CSE666 Research on Teaching, Learning & Curriculum in Math Ed  
Hours 3  
This course examines the principles of learning as they apply to the teaching of concepts, skills, attitudes, and problem solving; the proper use and evaluation of teaching aids and other forms of instructional implementation; the construction and understanding of teaching instruments; and the utilization of research in teaching, learning and curriculum in mathematics education.  
Prerequisite(s): Admission to post-master's graduate program  

CSE670 Res & Theory In Sec Ed  
Hours 3  
An examination of the relationship between theory and research. Students learn to search and evaluate the research literature and develop a proposal for research.  

CSE675 Research on Tools, Technology, and Assessment in Math Ed  
Hours 3  
The course focuses on the proper application of research-supported tools, technology, and assessment strategies in mathematics education as well as the construction and understanding of various assessment instruments.  
Prerequisite(s): Admission to a post-master's degree program or Permission of Instructor  

CSE690 Advanced Seminar  
Hours 1-3  
In-class opportunities to analyze and discuss current topics, problems, and projects of collective concern. Topics vary.  

CSE693 Advanced Workshop  
Hours 1-9  
In-class opportunities to study or work on topics or projects of collective concern. Topics vary. May be repeated.  
Prerequisite(s): CSE 670
CSE694 Advanced Problems
Hours 1-6
Opportunities to study or work independently on topics or projects of individual concern. Credit is based on the nature and degree of student involvement.

CSE695 Practicum
Hours 1-12
Supervised opportunities to apply knowledge and skills in a professional setting. Credit is based on the nature and degree of student involvement.

CSE697 Specialist Degree Res
Hours 1-6
Systematic classroom inquiry is used to engage students in a teacher action research project. Advisor recommendation required.
Prerequisite(s): CSE 670

CSE698 Non-Thesis Research
Hours 1-3

No description available

CSE699 Dissertation Research
Hours 1-12
This independent research course partially fulfills required research dissertation hours toward the doctoral degree. The course is conducted under the guidance of the dissertation advisor. Material covered will be of an advanced nature aimed at providing doctoral students with an understanding of the latest research and current developments within the field. Discussion and advisor guidance will be directed towards readings of research articles and development of research methodology.