

TEACHING AND LEARNING

<https://tal.edu.miami.edu/index.html>

Dept. Code: TAL

Programs

Doctor of Philosophy (Ph.D.)

- Teaching and Learning

This individually-tailored program is designed to help students achieve their professional research-based career goals. A central component of the doctoral program in Teaching and Learning includes work on research projects that support collaboration with faculty and the application of course work as students develop their own research ideas. TAL's Ph.D. program emphasizes an understanding of theory in scholarly inquiry; the intellectual framing and conduct of empirical research; the placement of research within cultural contexts and policy settings; designing, implementing and testing of transformative learning-environments that promote deep learning; and critical analysis of policy, research and practice.

Specializations are offered in:

- Language & Literacy Learning in Multilingual Settings (LLMS)
- Science, Technology, Engineering, and Mathematics (STEM)
- Special Education (SPED)

Doctor of Education (Ed.D.)

- Applied Learning Sciences
- Applied Learning Sciences (online)

Master of Science in Education (M.S.Ed.)

- Applied Learning Sciences
- Applied Learning Sciences (online)
- Education and Social Change
- Special Education
- Teaching English to Speakers of Other Languages (TESOL) and Bilingual Education (BE)

Masters Programs in Teaching and Learning

- M.S.Ed. in Applied Learning Sciences (<http://bulletin.miami.edu/graduate-academic-programs/education-human-development/teaching-learning/applied-learning-sciences-msed/>)
- M.S.Ed in Applied Learning Sciences (Online)
- M.S.Ed. in Education and Social Change (<http://bulletin.miami.edu/graduate-academic-programs/education-human-development/teaching-learning/education-social-change-msed/>)
- M.S.Ed. in Special Education (<http://bulletin.miami.edu/graduate-academic-programs/education-human-development/teaching-learning/special-education-msed/>)
- M.S.Ed. in Teaching English to Speakers of Other Languages (TESOL) and Bilingual Education (BE) (<http://bulletin.miami.edu/graduate-academic-programs/education-human-development/teaching-learning/tesol/>)

Doctoral Programs in Teaching and Learning

- Ed.D. in Applied Learning Sciences (<http://bulletin.miami.edu/graduate-academic-programs/education-human-development/teaching-learning/applied-learning-sciences-edd/>)
- Ed.D. in Applied Learning Sciences (<http://bulletin.miami.edu/graduate-academic-programs/education-human-development/teaching-learning/applied-learning-sciences-edd/>) (online)
- Ph.D. in Teaching and Learning (<http://bulletin.miami.edu/graduate-academic-programs/education-human-development/teaching-learning/teaching-learning-phd-language-literacy-learning-multilingual-settings/>)

TAL 600. Human Learning. 3 Credit Hours.

This course provides an overview of major theories of human development from childhood through adulthood. This course will focus on the individual learner as influenced by individual- and social-learning processes; the interrelationships between human learning and development; social settings for learning such as classroom, business, and informal learning environments; the applications of learning theories and models; the learning of language(s), content, social practices, and reasoning processes. Emphasis will be placed on how social, cultural, and linguistic diversity interact to create variation in human learning.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 601. Educational Assessment and Accountability. 3 Credit Hours.

This course covers the principles and classroom applications of educational measurement and assessment as well focuses on accountability policies and practices at the school, district, state and federal levels.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 602. Organizational Learning. 3 Credit Hours.

This course provides an overview on how organizations adapt and change, including changes that could be thought of as constituting "learning." Changes in shared values, structures, and practices can facilitate and/or hinder an organization's capacity to gather, select, and process information, to retain that information, and to act upon knowledge valued and created by members. Emphasis is placed on how participants' own careers fit within their employment or field-placement sites as learning organizations and how their efforts can help their sites to learn.

Components: DIL.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 603. Technology Applications in Education. 3 Credit Hours.

This course is designed to help you better understand why and how to use modern technologies in educational settings. Throughout the course, you will identify and share accessible technological resources, participate in hands-on activities, conduct mini-teaching, and create technology-enhanced instructional materials. You will examine the affordances and constraints of a variety of technologies including mobile learning, computer-based visualizations, web-based curriculum platforms, augmented and mixed reality, and online collaboration tools. You will discuss with the instructor and peers critical issues and policy relevant to the effective use of technologies in K-12 classrooms or informal learning environments. As a graduate level course, you will need to conduct a small-scale research that investigates the effectiveness of a technology-enhanced learning environment.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 604. Building Positive Relationships in Inclusive Secondary Schools. 3 Credit Hours.

Designed to assist general education teachers in meeting the needs of diverse secondary school students. Focus on students with disabilities, language and culture in the classroom, and developing culturally competent classroom management methods.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 605. Mentoring and Internship in Classroom Teaching. 3-6 Credit Hours.

A comprehensive program of supervised teaching in elementary or secondary class rooms.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 606. Issues and Strategies for ESOL. 3 Credit Hours.

This course provides a comprehensive foundation in ESOL (English for Speakers of Other Languages) competencies based on Florida's mandates and TESOL standards. Theory and practice will be emphasized in the areas of applied linguistics, cross cultural communication and understanding, methods of teaching, assessment, and curriculum and material development.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 607. Instructional Leadership. 3 Credit Hours.

An examination of the components of effective supervision of instruction. Leadership theories which apply to educational settings; legal rights and responsibilities of students, teachers and administrators will be covered. As well as the examination of various models of teaching.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 608. Language Development for Linguistically and Culturally Diverse Students. 3 Credit Hours.

Course will provide an introduction to theories of linguistics, first and second language acquisition, as well as foundations of English learner education. Readings and lectures will serve to highlight the development of language and literacy, including challenges faced by students for whom Standard English is a second language and/or a second dialect. This course will be the first in a two- course ESOL sequence.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 609. Supervised Practicum in Reading and Writing. 3 Credit Hours.

Supervised practicum in reading and writing. Emphasis is on assessment and interventions for elementary and secondary students with a range of academic, linguistic and cultural challenges in becoming proficient readers.

Components: PRA.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 610. Literacy and Learning Strategies in the Content Area. 3 Credit Hours.

Literacy instruction in content areas for grades 6 through 12; instructional methods and materials for development of language arts, reading, and study skills. Emphasis on appropriate materials, motivation, and support for students with exceptional needs and English language learners.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 611. Topics in the Professional Development and Supervision of Teachers.. 3 Credit Hours.

Topics include the preparation of clinical teachers to induct, guide, and supervise the field experiences of students and associate teachers; techniques in the observation and supervision of in-service teachers; creation and implementation of professional development plans; reading in the research on teacher development across the career.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 612. Building Positive Relationships with Diverse Learners. 3 Credit Hours.

This course will assist teachers in meeting the needs of diverse students. The readings and content focus on students with disabilities, language and culture in the classroom, and developing culturally competent classroom management methods.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 613. Prescriptive Teaching of Exceptional Students. 3 Credit Hours.

Techniques for individualization of instruction for exceptional students, including educational prescription, and curriculum adaptation.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

TAL 614. Assessment in Inclusive and Special Education Classrooms. 3 Credit Hours.

A survey of assessment instruments used to assess and evaluate exceptional students in inclusive and special education settings. Emphasis is on assessments for students in K-12 settings with a range of academic, linguistic, and cultural challenges in becoming proficient learners within an age of accountability policies. Graduate students will complete a research paper using APA writing format.

Prerequisite: TAL 629.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 615. Reading in the Elementary School. 3 Credit Hours.

Extending competencies in teaching reading, including exceptional children in the regular classroom, with emphasis on applying findings from research in reading to classroom practices. 20 hours of field experience required for all students who are not currently teaching.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

TAL 616. Mathematics in the Elementary School. 3 Credit Hours.

Content, methods, and research appropriate for teaching mathematics in the elementary school, including exceptional children in the regular classroom. Content is defined as a pre-algebra mathematics. 20 hours of field experience required for all students who are not currently teaching. Writing intensive course.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 617. Science in the Elementary School. 3 Credit Hours.

Extending competencies of elementary school teachers in teaching science to children, including exceptional children in the regular classroom. Development of science programs based on research which has classroom applications. 20 hours of field experience required for all students who are not currently teaching.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

TAL 618. Social Studies in the Elementary School. 3 Credit Hours.

Extending competencies in teaching social studies to children, including exceptional children in the regular classroom, with an emphasis on research applications. 20 hours of field experience required for all students who are not currently teaching.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

TAL 619. Exceptional Student Education and Classroom Management. 1-5 Credit Hours.

Introduction to theories and methods of effective classroom management and learning environments, perceptions of disabilities, addressing disruptive behaviors in classrooms and behavioral assessment.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 620. Teaching and Management for Diverse Classrooms. 3 Credit Hours.

This course will emphasize building a classroom culture and community that meets the needs of all students, including learners with disabilities and learners with culturally and linguistically diverse backgrounds. A history of major legal requirements for diverse populations is examined, including the meaning of learning differences, definitions and causes of disabilities, language acquisition processes, and methods for teaching diverse populations. An introduction to theories and methods of effective classroom management for building learning communities is integrated throughout the course.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 621. Student Teaching in the Elementary School. 5-6 Credit Hours.

A comprehensive semester-long program in observation and supervised teaching in the elementary school. The student spends full-time in an elementary school participating in all activities of the teacher under the guidance of school and university personnel.

Components: PRA.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 622. Student Teaching in the Secondary School.. 5-6 Credit Hours.

A comprehensive program in observation and supervised teaching in the secondary school. The student spends full-time in a secondary school participating in all activities of the teacher under the guidance of school and university personnel.

Components: PRA.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 623. Seminar on Teaching. 1-3 Credit Hours.

Topical seminar to accompany associate teaching

Components: SEM.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 624. Education and the Arts. 3 Credit Hours.

Exploration of the fine and performing arts and their relation to PreK-12 education. Emphasis is placed on experiential learning and methods of incorporating the arts in school curricula. The course also includes a focus on the value of the arts to the individual and society.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 625. Online Teaching and Leadership. 3 Credit Hours.

Introduction to teaching-learning process in online learning environments, including asynchronous modalities, assessment and evaluation, technology and digital copyright usage.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 626. Workshop in Education. 1-6 Credit Hours.

A critical study of practical problems of teachers. Significant problems are defined, literature and research are reviewed, and individual or small group projects are required.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 627. Understanding Culture in the Classroom. 3 Credit Hours.

This course explores the conflicts and the strategies for resolution between the patterns of culture in the classroom and the patterns of culture that school children bring to the classroom - patterns which are learned in their families and communities.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 628. Internship in Special Education Settings. 3-6 Credit Hours.

A comprehensive program of supervised teaching in special education settings. The student spends two full semesters employed as a full-time teacher while under the guidance of school and university personnel.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 629. Educating Exceptional Students. 3 Credit Hours.

A survey course in special education emphasizing characteristics and problems associated with various categories of exceptional learners. Policy, issues, and trends in special education will be discussed.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 630. Instructing Students Who Have Literacy Challenges. 3 Credit Hours.

Administration and interpretation of instructional assessments with instructional strategies and materials based upon scientifically based reading research for the prevention and remediation of reading difficulties.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 631. Assessment of Reading and Related Learning Disabilities. 3 Credit Hours.

Theories and procedures for screening, diagnosis, and progress-monitoring of reading and related learning disabilities. Includes instruction and supervised clinical experiences in administration and interpretation of assessments with an emphasis on prevention, identification, and remediation of reading and related learning disabilities.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

TAL 632. Intervention for Reading and Related Learning Disabilities. 3 Credit Hours.

Theories and procedures for screening, diagnosis, and progress-monitoring of reading and related learning disabilities. Includes instruction and supervised clinical experiences in administration and interpretation of assessments with an emphasis on prevention, identification, and intervention of reading and related learning disabilities.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 633. Reading Comprehension. 3 Credit Hours.

Development of comprehension, rate, and study skills; reading in the content areas; evaluation of materials, organization of programs; issues, problems, and exceptional readers. Emphasis is placed on understanding reading as a process of student engagement in fluent decoding of words and construction of meaning.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 634. Language and Reading Instruction. 3 Credit Hours.

Theories and methods of teaching reading to children and adolescents, including exceptional and linguistically diverse children in the regular classroom. This course emphasizes applying research-based practices in reading instruction to disciplinary (e.g., STEM, Social Studies, and/or English/Language Arts) classroom settings.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 635. Inclusive Models of Teaching. 3 Credit Hours.

This course focuses on models of inclusion and the educational roles to support student success in inclusive settings. Topics addressed include: differentiated staffing patterns; working as a member of team; successful collaborative practices; effective communication; including differentiation of instruction and application of principles of Universal Design for Learning (UDL); co-teaching; strategies for working effectively with students, families, parents, guardians, administrators, general education teachers, paraprofessionals, and other professionals, including students, families, and team members; and creating school partnerships.

Prerequisite: TAL 629. And TAL 614.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 636. Universal Design for Learning and Assistive Technology Strategies for Transition. 3 Credit Hours.

This course focuses on evidence-based interventions and models of support for students with disabilities in K-12 settings and strategies for preparing students for transition from school. Topics addressed include: strategies for using Assistive Technology effectively; strategies for enhancing self advocacy and self determination for students with disabilities; strategies for enhancing family involvement in career development and post school employment; transition services and models; preparing students with disabilities for employment and postsecondary education; residential alternatives; recreation and leisure for students with disabilities.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 637. Field Experience Seminar I. 0 Credit Hours.

This hybrid zero credit course has been designed to provide additional support for students in our teacher preparation programs. Students will enroll in this course while they participate in a series of field experiences where they gain practical experience integrating theory and practice while working with students in K-12 settings. Major topics include: the Florida Educator Accomplished Practices, Live Text, and guidelines and procedures.

Corequisite: TAL 612.

Components: SEM.

Grading: CNC.

Typically Offered: Fall & Spring.

TAL 638. Language Arts and Culture in the Classroom. 3 Credit Hours.

Extending competencies in the language arts including linguistic and cultural diversity and children with disabilities in elementary classrooms. Emphasis on research applications. 20 hours of field experience required for all students who are not currently teaching. Writing intensive course.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 639. Field Experience Seminar II. 0 Credit Hours.

This hybrid zero credit course has been designed to provide additional support for students in our teacher preparation programs. Students will enroll in this course while they participate in a series of field experiences where they gain practical experience integrating theory and practice while working with students in K-12 settings. Major topics include: the Florida Educator Accomplished Practices, Live Text, and guidelines and procedures.

Co-requisite: TAL 606.

Components: LAB.

Grading: CNC.

Typically Offered: Fall & Spring.

TAL 640. Typical and Atypical Child Development. 3 Credit Hours.

Theories and research in the development of children from conception through eight years of age. Factors which influence development and the relationship of typical development to patterns of delayed and atypical development. Writing intensive course.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 641. Working with Families of Young Children with Disabilities: Strategies and Medical Issues. 3 Credit Hours.

This course will address issues related to working with families of young children with special educational and health needs. This will include strategies for effective communication and collaboration with all members of the interdisciplinary team. This is a writing intensive course.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

TAL 642. Evaluation and Assessment in Infant and Early Childhood Special. 3 Credit Hours.

Students will become familiar with a variety of formal and informal screening, evaluation, assessment instruments, and procedures currently in use with children birth to eight. They will learn criteria for selecting and using developmentally and culturally appropriate instruments and become familiar with the multi-, inter-, and trans-disciplinary team approaches. Students will write formal reports and develop an IEP and an IFSP. May require field experience.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

TAL 643. Intervention Strategies in Infant and Early Childhood Special Education. 3 Credit Hours.

The focus of this course will be the implementation of IEPs and IFSPs through the use of developmentally appropriate curriculum, methods, and intervention strategies for infants, toddlers, and young children with special needs. This will include implementation and adaptation of existing curriculum and materials for young children to meet the special needs of this population. May require field experience. Writing Intensive course.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 644. Early Childhood Curriculum Development. 3 Credit Hours.

Development of curriculum for children from birth to eight years of age. Emphasis on application of research findings. 20 hours of field experience required.

Components: LEC.

Grading: GRD.

Typically Offered: Summer.

TAL 645. Methods for Communications and Language in Young Children with Disabilities. 3 Credit Hours.

This course will focus on language theories, models, and methods for birth-eight year olds. The course will present an overview of normal development in communication and discuss conditions that might impede progress as well as signs that would suggest a problem is present. This course may require field experience.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 646. Working with Children who Exhibit Challenging Behaviors. 3 Credit Hours.

Challenging behaviors in young children; influences of culture, language, ethnicity; applying Response to Intervention in Preschool settings; evidence-based classroom and behavior management strategies; planning intensive individualized interventions; applying positive behavioral support.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 647. Language and Early Reading Instruction. 3 Credit Hours.

Theories and methods of teaching reading to children, including exceptional and linguistically diverse children in the classroom. This course emphasizes applying research-based practices in reading, writing, listening, and speaking (e.g., foundations of reading, language development and reading/writing instruction) to elementary English language arts instruction.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 648. Practicum/Internship with Infants and Toddlers with Disabilities. 3 Credit Hours.

A comprehensive program in observations and supervised teaching in a school/center for infants and toddlers with disabilities (0-3 yrs.). The student spends full time in the school/center participating in all activities of the teacher under the guidance of school and university personnel.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 649. Practicum/Internship with Children with Disabilities (3-5 yrs.). 1-6 Credit Hours.

A comprehensive program in observation and supervised teaching in a school/center for children with disabilities (3-5 yrs.). The student spends full time in the school/center participating in all activities of the teacher under the guidance of school and university personnel.

Components: PRA.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 650. Early Reading Instruction and Literature for Young Children. 3 Credit Hours.

Study of literature for young children emphasizing multicultural literature and use of literature across the curriculum. Development of emergent literacy; examination of emergent literacy curriculum as well as appropriate assessment and instruction techniques. Emphasis on understanding or reading as a process.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 651. Affective, Relational, and Cultural Factors and Processes in Learning. 3 Credit Hours.

This course explores the impacts of non-cognitive factors on learning and the inter-relationships among what are usually thought of as cognitive and non-cognitive spheres of learning. At times, there may be conflicts between cultural practices as found in learning settings (including classrooms, businesses, and informal learning environments) and the practices into which learners have been enculturated by families and communities; at other times, an individual's identity and the values being imparted in a learning environment may work synergistically. The course includes a critical examination of the sources of these factors on human and organizational learning programs and practices.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 652. Assessment of Human and Organizational Learning. 3 Credit Hours.

This course provides an overview of the assessment of learners in educational, business, work place, and informal settings, with an emphasis on considerations related to cultural and linguistic diversity. Topics include classroom-based assessment, high-stakes assessment in educational settings, testing for job placement and certification, and program evaluation. Among the assessment techniques to be covered are cognitive interviews, the analysis of group-based processes, discourse analysis, and focus-group work.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 654. STEM Methods for Diverse Learners. 3 Credit Hours.

Research-based instructional practices and processes to meet the needs of all learners, including diverse populations, for mathematics/science education in schools.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

TAL 659. Practicum in Education and Social Change. 3 Credit Hours.

This practicum course is the culminating project for the Education and Social Change Master's Program. Participants will review the literature, design, and present an action project within the context of a school or community setting.

Components: THI.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 660. Instruction and Assessment in the Secondary School. 3 Credit Hours.

Research-based instructional processes for teaching diverse populations with a focus on culturally responsive teaching and curriculum, languaging, and literacies for secondary content area learning.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 661. Instruction in Secondary English.. 3 Credit Hours.

Analysis of methods, materials, and content appropriate for teaching language arts in the secondary school.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 662. Instruction in Secondary Mathematics. 3 Credit Hours.

Analysis of methods, materials, and content appropriate for teaching mathematics in the secondary school.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 663. Instruction in Secondary Science. 3 Credit Hours.

Analysis of methods, materials, and content appropriate for teaching science in the secondary school.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 664. Instruction in Secondary Social Studies. 3 Credit Hours.

Analysis of methods, materials, and content appropriate for teaching the social sciences in the secondary school.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 665. Methods of Teaching in the Elementary School. 3 Credit Hours.

Theories and research-based practices for reading/language arts, science, social studies, and math instruction for all learners, including diverse populations in elementary classrooms.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 666. Introduction to the Politics of Education, Teaching, and Learning. 3 Credit Hours.

Survey overview of political debates involving education as a nested and loosely-coupled system where pressures at one level can be supported or countermanded at another. Historical and critical take on present-day debates. Depending on student interests, may go in-depth on topics such as economic politics, cultural politics, state and local control.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

TAL 667. Education Reform, Policy, and the Social Organization of Schooling. 3 Credit Hours.

This course is designed to introduce students to the politics and policy debates in American education, including how the U.S. K-12 public education is organized as a socially-constructed system. We will examine the politics of a variety of recent reforms at the local, federal and state levels and their impact on institutions, students and the public.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 668. Human Development, Learning and Schooling. 3 Credit Hours.

Major theories of child development and learning will be discussed with a focus on how they apply to teaching and learning in K-12 schools.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 669. Teacher and Student Wellbeing in Education. 3 Credit Hours.

This course emphasizes the link between theory and research on personal, organizational, and collective well-being with educational success and school reform. A systems-change approach to educational well-being is also a focus, as applied to current issues in school reform.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 670. Teacher Preparation Seminar I. 0 Credit Hours.

This hybrid zero credit course has been designed to provide additional support for students in our teacher preparation programs. Students will enroll in this course while they participate in a series of field experiences where they gain practical experience integrating theory and practice while working with students in K-12 settings. Major topics include: the Florida Educator Accomplished Practices, Live Text, and guidelines and procedures.

Components: SEM.

Grading: SUS.

Typically Offered: Fall & Spring.

TAL 671. Curriculum, Assessment, Teaching and Learning for Physical Science. 3 Credit Hours.

Analysis of content knowledge, pedagogy, and materials appropriate for teaching physical science, K-16. The course content focuses on instructional practice with an emphasis on developing teacher content knowledge in physical science, pedagogy, and student literacy in physical science.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 672. Curriculum, Assessment, Teaching and Learning for Number, Operations, and Algebra. 3 Credit Hours.

This course examines topics that address the mathematical ideas underlying number, operations and algebra. Related K-16 curriculum, instructional and assessment issues will be also discussed.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 673. Curriculum, Assessment, Teaching and Learning for Measurement and Geometry. 3 Credit Hours.

Topics involving measurement and geometry in the K-16 mathematics curriculum, how students learn and reason, assessment, instructional strategies.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 674. Internship in the Elementary School. 3-6 Credit Hours.

A comprehensive program of supervised teaching in a K-6 classroom in the elementary school. The student spends a full semester employed as a full-time teacher while under the guidance of school and university personnel.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 675. Curriculum, Assessment, Teaching and Learning in the Earth Sciences. 3 Credit Hours.

Analysis of content knowledge, pedagogy, and materials appropriate for teaching Earth science, K-16. The course content focuses on instructional practice with an emphasis on developing teacher content knowledge in Earth science, pedagogy, and student literacy in life science.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 676. Curriculum, Assessment, Teaching and Learning for Data Analysis and Probability. 3 Credit Hours.

Data in the K-16 mathematics: how to gather (biased and unbiased samples), store, manage, represent, analyze. Probabilistic inferences in K-16 mathematics: chance, odds, counting, related topics.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 677. Applied Research in Education. 3 Credit Hours.

This graduate course introduces research in education, specifically different study design and methods to understand the strengths of each approach and become a critical consumer of research. Also emphasized is how educators can apply research methods to gauge student learning and drive instructional decision-making in classrooms.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 679. Teacher Preparation Seminar II. 0 Credit Hours.

This hybrid zero credit course has been designed to provide additional support for students in our teacher preparation programs. Students will enroll in this course while they participate in a series of field experiences where they gain practical experience integrating theory and practice while working with students in K-12 settings. Major topics include: the Florida Educator Accomplished Practices, Live Text, and guidelines and procedures.

Components: SEM.

Grading: SUS.

Typically Offered: Offered by Announcement Only.

TAL 680. Foundations of Bilingual Education. 3 Credit Hours.

This course will focus on the historical foundations of bilingual education in the U. S., current models of bilingual or dual language programs in PK-12 school settings, and contemporary understandings of bilingualism/biliteracy development using sociolinguistic and sociocultural perspectives.

Components: DIL.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 681. Principles of Curriculum Development and Engagement for TESOL. 3 Credit Hours.

Components of curriculum and instructional management and engagement in ESOL classrooms. Pupil/teacher interaction, curriculum organization, student assessment and evaluation, materials development and adoption, utilization of resources, and classroom organization.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 682. Methods of Teaching Content Areas in TESOL. 3 Credit Hours.

This course examines subject matter education for English language learners (ELLs) in the K-12 and international English as a foreign language (EFL) settings. Best practices are investigated and applied within different teaching contexts with a focus on helping students gain access to core subject knowledge.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 683. Introduction to Theories and Practice of TESOL. 3 Credit Hours.

Theory and practical methodology of language and literacy instruction and assessment to children, adolescents, and adults for whom English is not their first language, in alignment with current state, national, and professional standards (as applicable). There is a focus on inquiry into instructional approaches based on contemporary theories of learning, standards-based and data-driven lesson planning, and reflective practices in the teaching and assessment of emergent bilingual students learning English in school contexts.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 684. Advances Techniques in TESOL. 3 Credit Hours.

This course addresses advanced techniques in TESOL. The course focuses on methods and approaches for teaching English language learners and specific strategies to deliver instruction in the content areas.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 685. Language Assessment. 3 Credit Hours.

This course will familiarize students with the nature of and current methodologies of language assessment within a framework of psychometric and linguistic.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 686. Principles of First and Second Language Acquisition. 3 Credit Hours.

This course will familiarize students with the principles and processes at work in the acquisition of first and other languages. The course focuses on similarities and differences in the ways that first and second languages are learned and factors that influence the learning process for both. Participants will become familiar with current research related to language acquisition through course lectures, interactive course activities and individual as well as collaborative presentations.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 687. Home Language Strategies. 3 Credit Hours.

As a culminating course in the Bilingual/Biliteracy program track, this course will review theories in bilingual development, sociolinguistics, and language teaching in Spanish to build Spanish language proficiency for dual language teachers. There will also be an emphasis on communicating with Spanish-speaking parents of K-12 English learners.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 689. Language and Literacy for Academic Learning. 3 Credit Hours.

This course introduces key concepts and practical teaching approaches for learning the academic literacies needed to be successful in school contexts. Review of language theories and research concerning teaching academic literacy for education are highlighted throughout the course and embedded within disciplinary contexts for different subject areas (i.e., mathematics, social studies/history, English language arts, and science). Linguistic pedagogy is a central focus of the course to examine applications of language theory in K-12 classrooms serving English learners.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 690. Topics in Education. 3 Credit Hours.

Review of emerging policy, practice, empirical research and scholarly writing on important educational issues for which formal course title and syllabus have not been developed and formalized in the UM Bulletin. Allows for experimental instructional formats. Course number indicates appropriate student audience. See Course Notes for specific topic.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 691. Workshop in Education. 1-6 Credit Hours.

A critical study of practical problems of teachers. Significant problems are defined, literature and research are reviewed, and individual or small group projects are required.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 692. Curriculum, Assessment, Teaching and Learning for the Life Sciences. 3 Credit Hours.

Analysis of content knowledge, pedagogy, and materials appropriate for teaching life science, K-16. The course content focuses on instructional practice with an emphasis on developing teacher content knowledge in life science, pedagogy, and student literacy in life science.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 700. Professional Seminar. 1 Credit Hour.

The TAL Pro-seminar consists of a series of interactive sessions at which faculty, doctoral students, and guest speakers have the opportunity to discuss current topics in education research. Its purpose is to enhance the culture of scholarship and collegiality within the Department and to provide informal guidance to doctoral students on research and career directions in education.

DOCTORAL STANDING.

Components: SEM.

Grading: SUS.

Typically Offered: Fall & Spring.

TAL 701. Teacher in American Society. 3 Credit Hours.

An historical, philosophical, and sociological analysis of the teaching profession in American society. The role and status of teachers in American culture will be discussed. Contemporary issues such as the union movement, status assignment, rewards and incentives, and the role of the teacher as an instrument in the definition of the culture will also be covered.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 702. The Social and Cultural Foundation of Education. 3 Credit Hours.

This course is an interdisciplinary seminar reviewing the major literature in the Social and Cultural Foundation of Education. Classic, Modern and Post-Modern texts will be read with an emphasis on the literature written after 1980 (Post-Modern). Emphasis will be placed on the exploration of key policy questions, as well as the analysis of key sociological concepts related to the field such as hegemony, cultural reproduction, social capital and privilege. The course is intended to provide a "baseline" for understanding the field.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 703. Issues and Trends in Multicultural Education. 3-6 Credit Hours.

The study and critical examination of the theory and practice of multicultural education. Development of a personal theory of effective education for pluralism is included.

Components: SEM.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 704. Introduction to the Learning Sciences. 3 Credit Hours.

In this course we will explore perspectives and research on domain-specific and domain-general learning in and out of schools, especially those typically considered in the field of the Learning Sciences. We will examine various perspectives researchers use to inform their work and how these perspectives provide insight into what it means to learn and know. The course objectives include the following: -Understand key questions addressed in research on learning -Understand foundational and modern theories and perspectives in learning -Understand how various learning theories are applied in domain-specific/general research contexts and their limitations -Develop and articulate your own perspectives and research questions on learning.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 705. Design of online learning environments. 3 Credit Hours.

This course provides an overview of technology applications in learning environments, including history, theoretical foundations, design processes, and available technologies. The course includes an exploration of online learning applications/software, instructional design considerations, and curriculum development for online settings. Topics could include multi-literacies, digital youth network, media and connected learning, web-based learning, AI and machine based learning models.

TAL 704 OR TAL 600.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 706. Design of Formal Learning Environments. 3 Credit Hours.

This course on instructional design provides an overview of theoretical approaches to learning that can be used to analyze learning environments, of learning goals for creation and sequencing of learning activities, and of how resources can be deployed in support effective learning. Topics can include the use of theoretical learning trajectories, tenets and applications of universal design, and social support and intellectual scaffolds for learning.

Components: DIL.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 707. Design for workplace related learning. 3 Credit Hours.

This course deepens participants' understandings of workplace training and professional development by relating learning to needs assessments; instructional design techniques; program planning, marketing, and delivery techniques; and evaluation of adult learning programs within a variety of organizational settings. Emphasis is placed on constructing training and professional development programs that are meaningful to a diverse workforce and that achieve individual and organizational outcomes to improve an individual's and the organization's performance.

Components: DIL.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 708. Design of Out-of-School, Informal Learning. 3 Credit Hours.

This graduate seminar focuses on learning concepts and practices in and out of formal (school) instructional settings. People learn across a variety of places and over their entire lifespans; much of this learning is elective or interest-driven, in the sense that people voluntarily engage in activity in order to learn. In this we course, we consider how learning is organized within and across a variety of informal settings, including state and national parks, museums, theater organizations, zoos, aquariums, sports teams, one-on-one performance coaching, after school programs, non-profit community centers, in families or home environments, in virtual or online social spaces, and even in interactions between medical personnel and their clients. This course will include ties to sociocultural theories of development and learning as applied to out-of-school, informal contexts. The course provides a review of new empirical research and an overview of theoretical approaches to learning that can be used to analyze informal learning environments. The course will involve theoretical and empirical readings with group discussion, but also visits from and to people who are involved in learning in informal settings.

Components: DIL.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 710. Introduction to Research. 3 Credit Hours.

This graduate course focuses on diverse philosophies and epistemologies of research and the various methodologies that arise from them. Students will develop an understanding of and appreciation for a range of complementary educational research traditions. The goal is to enable students to participate meaningfully and critically in multiple discourse communities that employ and/or produce research bearing on substantive local, national, and international issues in education.

Components: DIL.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 711. Video Analysis Methods. 3 Credit Hours.

Video-based data has become ubiquitous in educational research. This methods course is designed to facilitate learning how to use video-based research methods in educational research. Despite the growing interest in video-based approaches, we are still beginning to theorize about various points of view when collecting and analyzing video data. There are practical questions about collecting video data and a growing number of software programs to support data analysis. The goal of this course is to learn about video-based methods for data analysis by critically engaging with how others do video analysis and by doing it collectively in the classroom and individually in a final paper.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 712. Applied Research and Development in the Learning Sciences - Seminar 2. 1-3 Credit Hours.

Students build upon, (re)define, (re)conceptualize, (re)develop and (re)implement their group-based project from TAL709 by using the research methods employed in its evaluation. The advanced project and its results may be submitted as a digital artifact making use of multiple media in a single language (such as English, French, Italian, Spanish, Portuguese or Chinese) by a team where that language was used to implement the plan and where its use will facilitate the project's completion. Each individual member of the team submits a paper defining their unique contributions to the project in such a way that it is clear that the work built upon and drew from course work in the Learning Sciences. Individual contributions must be substantive and should be complementary. Projects must be approved by advisor before it is implemented; if a language other than English will be employed, it must also be approved by faculty who will review and evaluate it.

Components: SEM.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

TAL 714. Introduction to Qualitative Methods. 3 Credit Hours.

The purpose of this course is to introduce graduate students to qualitative research methods and enable them to become educated consumers of such research. Students will also be introduced to basic strategies of qualitative interviewing and observation and will be encouraged to reflect on the potential fit between their own developing skills and their research interests.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 720. Research in Residence - Masters. 1 Credit Hour.

Masters-degree and Ed.S. students enrolled for credit as determined by advisor. Credit awarded when thesis is accepted.

Components: THI.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 730. Topics in Language and Literacy Learning. 1-3 Credit Hours.

Review of emerging policy, practice, empirical research and scholarly writing on important educational issues for which formal course title and syllabus have not been developed and formalized in the UM Bulletin. Allows for experimental instructional formats. Course number indicates appropriate student audience.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 731. Language Policy and Planning (K-12). 3 Credit Hours.

The course focuses on the areas that have been of particular interest to sociolinguists and language planners, namely, status planning, corpus planning, prestige planning, language-in-education planning, the language rights of linguistic minorities and the more recent movements from macro issues on language policy and planning (LPP) to micro issues involved in indexing linguistic, ethnic and racial identities. In addition, the course will address matters of migration, imperialism, state formation and political conflicts due to LPP in the United States as well as in countries in Latin America, the Caribbean, Africa, Asia and Europe.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 732. Seminar in Reading. 3 Credit Hours.

Seminar providing intensive study of contemporary topics in reading. Open to advanced graduate students in reading.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 733. Theories and Research in Linguaging and Language Development. 3 Credit Hours.

This course will provide an introduction to theories and research on languaging and language development. The course is grounded in contemporary understandings of language as a set of meaning-making practices that learners develop across the lifespan as they engage with diverse contexts and communities of language use. Key areas of focus include theoretical perspectives on languaging and language development; language use for academic purposes; language assessment; bilingual/multilingual education; and multimodal communication. Within each area, students will read both foundational and contemporary work as well as explore methodological approaches for conducting research. Students will also grapple with enduring tensions and ongoing debates in the literature, particularly as they relate to teaching and learning in linguistically diverse K-12 contexts.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 734. Theories and Research in Literacies and Literacy Development. 3 Credit Hours.

This seminar explores a broad array of topics influencing the study and teaching of literacy, including the history of literacy/ies research; major theories and models of literacy development; issues in literacy development (including individual differences); motivation and special populations; evidence-based literacy instruction; connections between reading, writing and learning; and reading and writing online and multimodal texts. Readings for this course include foundational papers, as well as recent studies, policy analyses, and reviews.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 735. Special Topics in Language and Literacies. 3 Credit Hours.

Critical examination of selected current issues in languaging and literacies from theoretical, historical, social, policy, practice and research perspectives.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 736. Pidgins, Creoles and African-American English in Sociolinguistic Research. 3 Credit Hours.

The course examines the typology of languages that emerged in North and South America as well as in the Caribbean as a result of sociolinguistic contact between European languages and west African languages, namely, pidgins, creoles and African-American English. The course also examines current debates on the extent to which the superstrate and substrate languages as well as the principles of Universal Grammar and the Language Bioprogram Hypothesis have contributed to the linguistic structures of Atlantic Pidgins, Creoles and African-American and Creole cultures are explored. Additionally, the course addresses the sociolinguistic research that advocates dialect diversity and the affirmation of vernacular languages as a means of social and educational reform.

Requisite: Graduate Standing.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 752. Seminar in Reading/Learning Disabilities. 3-12 Credit Hours.

Contemporary topics in reading and learning disabilities. Rotating topics and faculty. Open only to advanced graduate students in reading and learning disabilities pursuing specialist or doctoral degrees. Specialist students enroll for a total of six hours, and doctoral students for a total of 12 hours. Course may be repeated for a total of 12 credits. Subtitles describing the topics to be offered will be shown in parentheses in the printed schedule, following the title.

Components: SEM.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 753. Introduction to Science of Learning. 3 Credit Hours.

This course provides an overview of the major theoretical traditions and foundations that undergird and inform the Science of Learning across human settings. We will learn about the study and design of learning experiences as well as technologies and strategies for facilitating learning including access to learning and learner linguistic and cultural diversity and inclusion.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 754. Disability and Diversity: Critical Views. 3 Credit Hours.

Examines critical issues in the cultural/historical conceptualization of the field of special education against the background of cross-cultural views of disabilities.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 755. Current Issues in Special Education. 3 Credit Hours.

Current issues and trends in special education from historical, societal, policy, practice, and research perspectives. Topics may include identification, referral, and eligibility; inclusion and Least Restrictive Environment; parent involvement; participation of students with disabilities in high-stakes testing; cultural/linguistic diversity; the disproportionate placement of minorities; and teacher qualifications, certification, and education.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 756. Research in Special Education. 3 Credit Hours.

Critical analysis of empirical research studies in selected areas of special education research, focusing on research designs, data analysis methods, and interpretation of findings.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 757. Seminar in Special Education. 3-12 Credit Hours.

Study in special interest areas in special education. May be taken for up to 12 credits.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 758. Topics in Special Education. 1-3 Credit Hours.

Review of emerging policy, practice, empirical research and scholarly writing in important educational issues for which format course title and syllabus have not been developed and formalized in the UM Bulletin. Allows for experimental instructional formats. Course number indicates appropriate student audience. See Course Notes for specific topics.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 770. Topics in STEM Education. 1-3 Credit Hours.

Review of emerging policy, practice, empirical research and scholarly writing on important educational issues for which format course title and syllabus have not been developed and formalized in the UM Bulletin. Allows for experimental instructional formats. Course number indicates appropriate student audience. See Course Notes for specific topics.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 772. Instructional Design and Technology in STEM Education. 3 Credit Hours.

This course is designed to help you take an engineering approach in instructional design, development, and evaluation in STEM education. The course focuses on instructional systems development with a particular emphasis on technology-enhanced K-12 STEM education environments. We will develop an in-depth theoretical understanding and practical skills of instructional design and technology.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 773. Teaching and Teacher Education. 3 Credit Hours.

This course focuses on several key dimensions of schools and schooling and their relationship to larger historical and social contexts, including the history of U.S. education; equity issues in past and present U.S. education; contemporary educational issues & theory; and international/global education.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 774. STEM Learning. 3 Credit Hours.

Provides an overview of the historical roots and current state of the learning sciences, as they apply to the study of learning in science, technology, engineering and mathematics (STEM). Organized around reading, discussion and synthesis of research.

Components: LEC.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 775. STEM Curriculum and Policy. 3 Credit Hours.

Study of mathematics and science curricula, with the inclusion of engineering and technology as applied science and mathematics. Study of the competing forces that shape curriculum including standards documents, state and national policy, conceptions of the disciplines, modern and postmodern analyses of curriculum theory.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 776. Assessment in STEM Education. 3 Credit Hours.

Overview of the theoretical and research frameworks for student assessment in science, technology, engineering and mathematics (STEM). Topics include classroom-based assessment, testing for high stakes and other purposes, national and international comparisons in mathematics and science achievement and factors impacting on STEM-related persistence and careers.

Components: SEM.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 777. STEM-Education Research Practicum. 3 Credit Hours.

Defining an empirical or theoretical research issue, arguing for its importance; framing the study based on related research; designing, implementing and documenting appropriate research methods; reporting and interpreting the results; writing and submitting a manuscript – in the fields that comprise STEM-education.

Components: PRA.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 778. Diversity and Equity in STEM Education. 3 Credit Hours.

Issues of unequal student achievement, course taking, degree-seeking, and careers that rely on science, engineering, technology and mathematics (STEM). Focus is on social-demographic groups defined along lines of race, ethnicity, social class, gender language, and their interactions. Historical and social antecedents, current day policies and practices, extant research consequences and future trends.

Components: LEC.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 790. Advance Topics in Education. 3 Credit Hours.

Review of emerging policy, practice, empirical research and scholarly writing on important educational issues for which formal course title and syllabus have not been developed and formalized in the UM Bulletin. Allows for experimental instructional formats. Course number indicates appropriate student audience. See Course Notes for specific topic.

Components: SEM.

Grading: GRD.

Typically Offered: Offered by Announcement Only.

TAL 793. Advanced Individual Study. 1-3 Credit Hours.

Individual work on a special project under faculty guidance. Application for Admission to Advanced Individual Study form will be required.

Components: LEC.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 794. Advanced Individual Study. 1-3 Credit Hours.

Individual work on a special project under faculty guidance. Application for Admission to Advanced Individual Study form will be required.

Components: THI.

Grading: GRD.

Typically Offered: Fall, Spring, & Summer.

TAL 796. Practicum/Internship: Elementary Exceptional Student Education Classroom. 1-6 Credit Hours.

A comprehensive program of observations and supervised teaching in an elementary exceptional student education classroom. The student spends full time in the classroom participating in all activities of the teacher under the guidance of school and university personnel.

Components: LAB.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 801. Advanced Individual Study for Doctoral Students. 1-3 Credit Hours.

Individual work on a special project under faculty guidance. Application for Admission to Advanced Individual Study form will be required.

Components: THI.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 809. Applied Learning Sciences Capstone I. 1-3 Credit Hours.

The completion of TAL 809 is focused on designing the capstone project. In a nutshell, a satisfactory project should address a local problem or issue related to learning (e.g., designing effective instruction online). For that students need to: - Design and develop a sophisticated need analysis (e.g., learner analysis, task analysis, performance analysis) about addressing a situation/issue they selected; - Layout the theoretical foundations that they take up/will be applying based on the field of the learning sciences; - Describe the new design in detail, including its constituent components and how it is informed by the theory laid out.

Components: SEM.

Grading: SUS.

Typically Offered: Offered by Announcement Only.

TAL 810. Master's Thesis. 1-6 Credit Hours.

The student working on his/her master's or Ed.S. thesis enrolls for credit. In most departments no to exceed six, as determined by his/her advisor.

Credit is not awarded until the thesis has been accepted.

Components: THI.

Grading: SUS.

Typically Offered: Fall & Spring.

TAL 811. Applied Learning Sciences Capstone II. 1-3 Credit Hours.

The implementation of the project should take place within the 7 weeks of the TAL 811 course, but there are also other tasks (e.g., data analysis) that should be completed during the same timeframe. Before scheduling the project implementation please be advised that all students need to contact the administrators/teachers or any stakeholders. Common procedures associated with the project implementation are (i) to prepare the teacher/instructor, and (ii) to prepare the students/learners. Preparing the teacher/instructor: It is important to prepare the teacher(s) and provide them with guidance on how to facilitate the instructional interventions and utilize the learning resources designed during TAL 709. Preparing the students/learners: It is important to explain to the students/learners the importance of active participation in the instruction and thorough engagement with the learning resources and instructional activities.

Components: SEM.

Grading: SUS.

Typically Offered: Offered by Announcement Only.

TAL 812. Applied Learning Sciences Capstone III. 1-3 Credit Hours.

TAL 812 is the last step of the capstone project. It is dedicated to describing all resources and data resulting from projects completed in the previous two seminars in a final written report (i.e., the written report) and presenting the findings to the members of the examining committee (i.e., the oral defense). There are six mandatory tasks that need to be completed in a relatively short period. If a student or project team doesn't complete and submit a task, this will result in a grade of U (i.e., unsatisfactory) for this course. And the committee will evaluate students' two outcomes (i.e., Written Report and Presentation) from this course

Components: SEM.

Grading: SUS.

Typically Offered: Offered by Announcement Only.

TAL 815. Post-Candidacy Thesis Research. 1-12 Credit Hours.

Masters-degree and Ed.S. students enrolled for credit as determined by advisor. Credit awarded when thesis is accepted.

Components: THI.

Grading: SUS.

Typically Offered: Offered by Announcement Only.

TAL 825. Continuous Registration - Master's Study.. 1 Credit Hour.

To establish residence for non-thesis master's study who are preparing for major examinations or working on culminating project. Credit not granted. Regarded as full time residence.

Components: THI.

Grading: GRD.

Typically Offered: Fall & Spring.

TAL 830. Pre-Candidacy Dissertation Research.. 1-12 Credit Hours.

Doctoral students enrolled for credit as determined by advisor. Credit is awarded when dissertation is accepted.

Components: THI.

Grading: SUS.

Typically Offered: Fall & Spring.

TAL 835. Doctor of Education Dissertation. 1-12 Credit Hours.

Required of all candidates for the Ed.D. The student enrolls for credit as determined by his/her advisor. Credit is not awarded until the doctoral project has been accepted. Total enrollment may not exceed 12 credits.

Components: LEC.

Grading: SUS.

Typically Offered: Offered by Announcement Only.

TAL 840. Post-Candidacy Dissertation Research.. 1-12 Credit Hours.

Doctoral students enrolled for credit as determined by advisor. Credit is awarded when dissertation is accepted.

Components: THI.

Grading: SUS.

Typically Offered: Fall & Spring.

TAL 850. Research in Residence. 1 Credit Hour.

Doctoral students enrolled for credit as determined by advisor. Credit awarded when dissertation is accepted.

Components: THI.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

TAL 862. Principles of Curriculum Development and Classroom Management for TESOL. 3 Credit Hours.

Components of curriculum and instructional management in ESOL classrooms. Pupil/ teacher interaction, curriculum organization, student assessment and evaluation, materials development and adoption, utilization of resources, and classroom organization will be covered.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

TAL 878. Teaching in the Elementary School (YR). 3-6 Credit Hours.

A comprehensive year-long program in observation and supervised teaching in the elementary school. The student spends full time in an elementary school participating in all activities of the teacher under the guidance of school and university personnel following the calendar of the school system.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.