

# Teaching and Learning (T&L)

## Courses

### T&L 220. Lakota Linguistics for Teachers 1. 3 Credits.

This is an introductory course on Lakota linguistics designed for Lakota language teachers. It focuses on three main components of Lakota grammar: (i) Lakota pronunciation and alphabet, (ii) Lakota inflectional morphology, and (iii) Lakota sentence structure (syntax). The first component is a thorough introduction to Lakota phonemic inventory, historic and current writing systems and methodology on how to teach pronunciation, listening comprehension and how to develop phonemic awareness in second language acquisition of Lakota. The second component offers a comprehensive coverage of Lakota conjugation of all verb classes and types. The third component introduces Lakota sentence structure up to intermediate level. On demand.

### T&L 250. Introduction to Education. 3 Credits.

This course is designed for students exploring the profession of teaching in early childhood, elementary, middle, or secondary schools. You will study what it means to be a teacher, the role of schools in a diverse society, and the foundations of education. You will participate in field experiences in schools, role-playing, simulations, and peer-teaching to explore teaching in today's schools. F,S.

### T&L 251. Understanding Individuals with Different Abilities. 3 Credits.

This course is designed to introduce students to foundational knowledge of individuals with different abilities addressing the identification, supports, range of services, assessment components, and evidence-based teaching practices. Historical, legal, cultural, and societal influences that impacts educational success will be explored. F,S,SS, even years.

### T&L 252. Child Development. 3 Credits.

Study of the growth and developmental process through adolescence. A basis for understanding basic needs of the normal child and means of meeting them in the child's home and community environment. F,S.

### T&L 286. Field Experience. 1 Credit.

Supervised tutorial or apprentice teaching experience in an early childhood, K-12 classroom, university or community setting approved by the program area. S/U grading. Prerequisite: Consent of instructor. Repeatable to 3.00 credits. S/ U grading. F,S.

### T&L 310. Introduction to Early Childhood Education. 3 Credits.

An overview of the early childhood education field, including an introduction to its historical roots; current theories, program models and issues; curriculum development; and typical and atypical development of young children. There will be a minimum of six hours of observation and/or activities in the field. F,S.

### T&L 311. Observing and Assessing Children. 3 Credits.

This course acquaints the student with a variety of ways of observing, recording, and analyzing the behavior and development of children. Assessment of children will be analyzed by looking at a variety of assessment activities that can be done with children. There will be a minimum of six hours of field experience. Prerequisite: Admission to Teacher Education Program and T&L 310. S.

### T&L 313. Language Development and Emerging Literacy. 3 Credits.

This course examines both typical and atypical development of language and thought in children ages birth-8. Children's emergent literacy is studied within the context of language development. There will be a minimum of eight hours of field experience. Prerequisite: Admission to the Teacher Education program. F.

### T&L 316. Behavioral Assessment and Tiered Supports in Education. 3 Credits.

The study of behavior management within a multi-tiered system of support (MTSS) for the educational advancement of children and youths in schools. Behavior concepts, assessments, and interventions are applied within the MTSS framework as defined by contemporary special education laws and regulations. Prerequisite or Corequisite: T&L 251. F.

### T&L 319. Integrating Diverse Needs in Educational Settings. 3 Credits.

This course introduces students to the shared, collaborative responsibility of professionals in education. It emphasizes understanding of different emotional and learning abilities and underscores the requirement that teachers create and modify learning environments and adapt evidence-based teaching strategies and methods. Integrated into this course are concepts of accountability, building collaborative partnerships and facilitating educational programming for inclusive success. F,S,SS, odd years.

### T&L 320. Infant and Toddler. 3 Credits.

This course is a study of the child's growth and development from birth to 36 months. It will give the student a basis for understanding normal developmental needs of children and means of meeting them in the children's home and community environments. Prerequisite: T&L 252 or PSYC 250 or permission of instructor. F.

### T&L 322. Administration and Leadership in Early Childhood Education. 3 Credits.

An investigation of patterns of administration, curriculum organization, spatial resources, and staffing in early childhood settings, serving children 0-8 years old. Topics include federal and state laws and emerging trends in preschool and primary education in the state, region, and nation. Ten (10) hours of field experience. Prerequisite: Admission to the Teacher Education program. F.

### T&L 324. Integrating the Arts in the Elementary Classroom. 3 Credits.

Learn why integrating the arts in the elementary classroom is critical for student learning and engagement. Design lessons that engage children in learning elementary content through the arts as well as foster children's creative expression. F,S.

### T&L 328. Survey of Children's Literature. 3 Credits.

Students survey the broad range of literature written for children. Emphasis is placed on gaining familiarity with the multicultural aspects of literature, understanding the distinguishing characteristics of genre, developing visual literacy with respect to illustration, and acquiring the ability to evaluate literature, as well as its use, with an understanding of children's developmental needs. F,S.

### T&L 329. Young Adult Literature. 3 Credits.

Discussion and critical evaluation of contemporary literature, both adolescent and adult, which is of interest to young adults, with an emphasis on fiction, drama, poetry, essays, and biographies. On demand.

### T&L 330. Lakota Linguistics for Teachers 2. 3 Credits.

This course builds on LLT1 and offers a comprehensive coverage of Lakota inflectional and derivational morphology, allowing the students to identify, use and teach all types of Lakota verbs in all their forms. Secondly, the course provides a thorough introduction to Lakota sentence structure (syntax). Prerequisite: T&L 220. On demand.

### T&L 333. Methods and Materials: Pre-Kindergarten. 3 Credits.

Exploration of curriculum, methods and materials for use in pre-kindergarten educational settings. Includes selection of materials, creative environments, and planning for the individual needs of children within a group setting. Prerequisite: T&L 310 and admission to the Teacher Education program. Corequisite: T&L 486. F,SS.

### T&L 335. Foundations of Reading. 3 Credits.

This course presents scientifically based reading research foundations needed to understand reading development. Students explore the instructional implications related to phonological awareness, phonics, fluent reading, vocabulary acquisition, and comprehension. Students examine literacy assessment and analysis to inform individual instruction. Prerequisite: Admission to the Teacher Education program. F,S.

### T&L 336. Social and Emotional Development and Guidance of Children. 3 Credits.

This course examines both typical and atypical social and emotional development in children ages 0-8 as a basis for understanding and working with children in educational settings. The course will also focus on child guidance and behavior issues affecting classroom climate. There will be a minimum of 6 hours field experience. F.

### T&L 338. Home, School and Community Relations. 3 Credits.

The course is an exploration of home school relations. The content will include history, parental involvement in schools, parent-teacher conferences, home visits, parent programs, and resources for parents. S.

**T&L 339. Educational Technology. 3 Credits.**

Students will demonstrate a sound understanding of technology concepts and operations that not only support classroom curriculum but provide an avenue for continuing professional development. Students will learn to apply technology to facilitate a variety of effective assessment and evaluation strategies. The class will help students understand the social, ethical, legal and human issues that surround the use of technology in PK-12 schools. F,S,SS.

**T&L 341. Foundations of Middle Level Education. 2 Credits.**

This course promotes understanding the needs of early adolescent students and of the interdisciplinary, collaborative teaching approaches associated with the middle school philosophy. The course addresses the components of organization. Prerequisite: Admission to the Teacher Education program. F.

**T&L 345. Curriculum, Instruction, and Assessment. 3 Credits.**

A general curriculum development and instruction course designed for the undergraduate pre-service middle school and/or secondary teacher across all disciplines. It introduces and provides practice in planning, multiple instructional strategies, and methods of formal and informal assessment. It considers the impact of historical foundations, teaching philosophy, discipline standards, knowledge of diverse learners and special needs, and technology on curriculum development. Prerequisite: T&L 250. F,S.

**T&L 350. Development and Education of the Adolescent. 3 Credits.**

A comprehensive examination of the characteristics and behavior of the adolescent student with implications for curriculum and instruction in the junior/middle and high schools. Topics covered will be transition from childhood to adolescence, including cognitive development, self-concept, physiological changes, social needs and values, and values and attitudes of adolescents. This course will provide an understanding of the wide range of differences in developmental patterns of children and the influences of economic, sociological and psychological factors in development. An additional 10 hour field experience is required for the course. Prerequisite: Admission to Teacher Education Program and T&L 250. F.

**T&L 370. Differentiated Instruction. 3 Credits.**

An introduction to the principles of differentiation including responsive instructional and assessment strategies, learner preferences, and the dynamics of a differentiated learning environment. Managing and organizing a differentiated approach to teaching is also presented. S.

**T&L 386. Field Experience. 1 Credit.**

Supervised tutorial or apprentice teaching, experience in an early childhood, K-12 classroom, university or community setting approved by the program area. Optional. Prerequisite: Admission to Teacher Education Program and T&L 250. S/U grading. F,S.

**T&L 390. Special Topics. 1-3 Credits.**

May be repeated. Prerequisite: Admission to the Teacher Education Program. Repeatable.

**T&L 400. Methods and Materials. 3 Credits.**

Various teaching methods and strategies and the materials used in teaching in a subject area. (Some Methods and Materials courses carry an academic department prefix and number. The number of methods courses required by a department may vary. Consult with an adviser.) Some offered F only; some F,S. See adviser. Prerequisite: T&L 250 and T&L 345, and admission to the Teacher Education program. Corequisite: T&L 486. Repeatable to 18.00 credits. F,S.

**T&L 401. School Safety Science. 1 Credit.**

Prepares students to plan for and communicate about a wide variety of classroom and laboratory safety issues. Health and safety issues are examined for the classroom teacher and the students in all science courses, including electrical safety, biological safety, chemical use, storage and disposal, legal issues, liability reduction and cost control are also addressed in detail. Prerequisite: Admission to Teacher Education Program. Corequisite: T&L 400. F.

**T&L 404. Assessment in the Elementary Classroom. 1 Credit.**

Elementary teachers must know how to design and use classroom assessments across all content areas as a way to monitor student learning and achievement, and to inform their decisions about instruction and the learning environment. This course will outline procedures for designing or selecting, administering, scoring, and interpreting a variety of formative and summative assessments for use in elementary classrooms. By exploring assessments aligned to educational objectives and standards, students will evaluate student learning outcomes across the elementary grades and content areas. In addition, students will become familiar with measures to assess learners with special needs and to assess learners from linguistically and culturally diverse backgrounds.

**T&L 405. Data Literacy for Teachers. 1 Credit.**

Teachers in all grade levels and program areas must know how to effectively and responsibly use student assessment data to inform their practice and address individual student needs and learning goals. This course will introduce students to various sources of assessment data, how to analyze patterns and themes in the data in order to make individual and programmatic decisions, and how to discuss data trends with colleagues as part of a professional learning community. Through careful examinations of real student data and discussions with community educators and administrators, students in this course will gain an understanding of the role and purpose of data and how to meaningfully use it to guide instruction. F,S,SS.

**T&L 409. Reading in the Content Areas. 3 Credits.**

This course emphasizes instructional strategies and techniques for reading and writing, as well as the use of varied texts, in the content area classroom. This course also includes scientifically- and researched-based best practices including phonemic awareness, phonics, fluency, vocabulary, and comprehension, as well as assessment of reading abilities and the identification and correction of reading difficulties to increase student achievement. Prerequisite: Admission to the Teacher Education program. F,S.

**T&L 410. Reading Methods in Elementary Schools (TEAM). 3 Credits.**

This methods course prepares future elementary teachers with the essential methods, dispositions, and strategies for teaching and assessing literacy in the elementary school classroom. Explicit and systematic instruction of phonological awareness, phonics, fluency, vocabulary, and comprehension are studied, practiced, and implemented. Prerequisite: Admission to the Teacher Education program; see department for approval. F,S.

**T&L 411. Primary Reading and Language Arts. 2 Credits.**

This course explores a wide variety of developmentally-appropriate instructional practices for teaching primary level children multiple ways of communicating and experiencing language. This course emphasizes integrating reading, writing, speaking and listening as forms of creative and personal expression. Effective methods of teaching children to decode and encode print are studied. Prerequisite: Admission to the Teacher Education program. S.

**T&L 412. Science of Reading: Research-Based Literacy Practices. 3 Credits.**

The course provides an introduction to the science-based principles of literacy and language development. Students explore the best practices for teaching reading across the grade levels including instructional implications related to the five components of reading. S.

**T&L 413. Assessing and Correcting Reading Difficulties. 3 Credits.**

This course and embedded 15-hour field experience examines research-based assessment techniques and tools aligned to the five components of reading: phonemic awareness, phonics, fluency, vocabulary and comprehension. Students will have opportunities to administer and interpret research-based literacy assessment results to plan differentiated and independent instruction. Corequisite: This course is recommended to take at the same time as T&L 444. F,SS.

**T&L 414. Corrective Reading Practicum. 2 Credits.**

Applying the knowledge and skills learned in T&L 413, students in this practicum assess, plan for and teach children who are having difficulty with reading and/or writing. F,SS.

**T&L 415. Language and Literacy Development of English Language Learners. 3 Credits.**

This course includes study of various approaches to ELL/bilingual education, methods of instruction, assessment of English language proficiency and classroom learning, and teaching academic content to ELLs in the general education classroom. Prerequisite: Admission to the Teacher Education program or permission of instructor. S.

**T&L 416. Adolescent Literacy Development. 3 Credits.**

A study of adolescent literacy development with emphasis on instructional strategies and practices for reading and responding to texts, helping struggling readers, and engagement in literacy. Prerequisite: Admission to the Teacher Education program or permission of instructor. F.

**T&L 417. Writing & Language Arts Methods. 2 Credits.**

A study of methods for teaching writing and language arts to children in grades K-6. Emphasis is placed on process-oriented writing approaches; spelling and grammar; ways of using language for creative, personal, and content area expression. Prerequisite: Admission to Teacher Education Program. F,S.

**T&L 418. Curriculum & Pedagogy in Indigenous Education. 3 Credits.**

This course examines indigenous ways of thinking about and doing schooling. Students will study both the theory and practical classroom applications of indigenous knowledge systems, culturally sustaining curriculum, indigenous models of education and critical pedagogy. On demand.

**T&L 420. Assessment for ELLs. 3 Credits.**

This course broadly explores issues of assessment, language proficiency assessment and classroom-based assessment for English Language Learners. Students will understand and use multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to inform instruction. Topics of study include: identification and placement of ELLs, cultural bias in testing, standardized testing and accommodations, state and federal policies regarding ELLs and assessment, program evaluation, and classroom-based assessments. F.

**T&L 422. Development of the Gifted and Talented. 2 Credits.**

Research and theory for understanding the development needs of the more able child in early childhood and in educational experiences. S.

**T&L 423. Assessment and Individualized Planning in Special Education. 3 Credits.**

A study of the principles and practices of: (1) obtaining diagnostic information on school-related problems of a student; (2) assimilating this information and prescribing appropriate alterations based on continuous measurement data. Prerequisite: T&L 316. S.

**T&L 424. Methods & Materials & Phil: Art Elem Classroom. 1-4 Credits.**

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**T&L 430. Social Studies Methods in Elementary Schools (TEAM). 3 Credits.**

To understand and analyze the different modes of teaching social studies, to gain the competencies necessary for organizing a unit in the social studies, to gain an understanding of the values and multiple perspectives inherent within the various teaching strategies, to develop a preferred perspective on the ideal nature of Social Studies education. Prerequisite: Admission to the Teacher Education program; see department for approval. F,S.

**T&L 432. Learning Environments. 3 Credits.**

The purpose of this class is to study psychological, social, and cultural factors that influence classroom behavior and to examine elements that contribute to a positive learning environment. An additional 15 hour field experience is required for the course over a three-week period. Prerequisite: Admission to the Teacher Education program. F,S.

**T&L 433. Multicultural Education. 3 Credits.**

This course is designed to implement a multicultural approach to teaching and learning by examining how race, ethnicity, and culture influence students' experiences in schools. This course's content provides teacher candidates with the knowledge and concepts they need to enhance their understanding of socio-cultural consciousness through culturally responsive and relevant pedagogy. Teacher candidates will understand how to develop appropriate, informed, and sensitive responses to the rich diversity (gender, sexuality, exceptionality, age, socioeconomic status, religion, ethnicity, race, language, and culture) of student learners in the classroom as a pathway to be inclusive. This course explores immigration and refugees' issues and examines cultural assumptions, implicit biases, attitudes, and values that shape our perceptions and predicate our actions. This exploration prepares teacher candidates to create spaces in their learning environments where all learners are supported through acknowledgment of multiple identities, funds of knowledge, and experiences to surface and interrupt oppression. This multicultural course highlights the effects of settler colonialism on Native Peoples. This course will help students to learn about the American Indian Reservations in North Dakota: The history, language, school settings, population, tribal governments, sovereignty laws, and early education for North Dakota's Native Peoples. Note: course requires you to complete 10 hours of field experience working with students from diverse backgrounds. Prerequisite: Admission to the Teacher Education program. F,S,SS.

**T&L 440. Mathematics Methods in Elementary Schools (TEAM). 3 Credits.**

Students explore how to facilitate the learning of mathematics in a constructivist environment through the use of investigations, manipulatives, technology, and holistic forms of assessment. Current trends in teaching mathematics are emphasized, with particular attention to documents created by the National Council of Teachers of Mathematics. Prerequisite: Admission to the Teacher Education program; see department for approval. F,S.

**T&L 443. Mathematics for Primary Grades. 2 Credits.**

Math for Primary Grades focuses on curriculum and methods for teaching mathematics in kindergarten through the third grade. Students actively engage in projects and activities that help them develop a conceptual understanding of teaching mathematics in a cooperative and constructivist environment where children view themselves as mathematicians. Emphasis is placed on the use of manipulative, problem solving activities and children's literature in the planning and organizing of developmentally appropriate classroom activities and lessons. Prerequisite: Admission to the Teacher Education program. F,S.

**T&L 444. Assessing and Correcting Mathematics Difficulties. 2 Credits.**

The focus of this course and the embedded 15-hour field experience is to learn about current approaches to assessment and methods to assist students who are having difficulty with mathematics. Observations, error pattern analysis, interviews, and other evaluation procedures are used to learn about elementary students' mathematical abilities, and these assessments are used to plan for instruction. Corequisite: This course is recommended to take at the same time as T&L 413. F.

**T&L 451. Second Language Acquisition for ELLs. 3 Credits.**

In this course, students will develop an understanding of the socio- and psycholinguistic aspects of interlanguage by studying the theories and research of first and second language acquisition. Students will examine the nature of learners and their individual differences during the stages of language development. F.

**T&L 453. Methods and Materials: Kindergarten. 2 Credits.**

Exploration of curriculum, methods, and materials for use in kindergarten settings. Prerequisite: Admission to Teacher Education Program and T&L 310. F,S,SS.

**T&L 456. Early Childhood Ed Seminar. 1 Credit.**

This seminar continues the exploration of curriculum, methods, and materials issues as they are presented in the particulars of the student teaching experience. Prerequisite: T&L 333 and admission to Teacher Education Program. Corequisite: T&L 487. F,S.

**T&L 465. Middle Level Curriculum and Methods. 5 Credits.**

This methods course takes a hands-on approach to increasing understanding and application of the various methods and strategies for teaching early adolescent students. This course addresses techniques, strategies, materials, and a content area knowledge base necessary for promoting student learning and success in a middle school setting. Prerequisite: T&L 341. Corequisite: T&L 486. S.

**T&L 467. Language Structure and Analysis for ELL Teachers. 3 Credits.**

This course explores the grammatical and discourse structures of the modern English language, analysis of grammar and discourse with a focus on specific problem areas for ELLs, and pedagogical implications for ELLs' English language development. S.

**T&L 470. Science Methods in Elementary Schools (TEAM). 3 Credits.**

A survey of teaching strategies, materials, and resources appropriate for promoting science inquiry in elementary classrooms. Prerequisite: Admission to the Teacher Education program; see department for approval. F,S.

**T&L 474. STEM Concepts in the Elementary Classroom. 3 Credits.**

Elementary school teachers must know and understand the fundamental concepts and practices in all domains of science (physical, life, earth and space sciences), as well as how technology, engineering, and math are integrated into this subject matter, so that they can plan and effectively implement meaningful and engaging STEM learning experiences for their students. This course will provide a foundation in the science content necessary for elementary teachers to know through a hands-on, inquiry-based approach. Further, it will introduce students to effective teaching strategies for not only integrating the components of STEM across all science domains but for making STEM accessible for diverse learners as well. F,S,SS.

**T&L 486. Field Experience. 1-4 Credits.**

Supervised tutorial or apprentice teaching experience in an early childhood, K-12 classroom, university, or community setting approved by the program area. Prerequisite: Admission to the Teacher Education program. Repeatable to 16.00 credits. S/U grading. F,S.

**T&L 487. Student Teaching. 1-16 Credits.**

Provides students with the opportunity to assume the role of a classroom teacher in an educational setting under the supervision of a cooperating teacher and a University faculty member. Ongoing professional support will be provided throughout the progression of the student teaching experience including professional support and development opportunities such as mental health training and ethics training which were formally part of TL 488, Senior Seminar. Prerequisite: Permission of program, senior standing only. Repeatable. S/U grading. F,S.

**T&L 489. Senior Capstone: Responsive Teaching. 3 Credits.**

Course is taken with student teaching. Teacher candidates engage in written communication and critical thinking in the context of student teaching. Course engagements require candidates to develop and implement curriculum and assessment; analyze and reflect on assessment results to respond to learners' needs; and synthesize professional artifacts to demonstrate ability to plan, implement, assess and reflect on teaching and learning. Corequisite: Acceptance into Student Teaching. F,S.

**T&L 493. Workshop. 1-4 Credits.**

Special problems in Special Education; consideration of special problems of concern to the Special Education teacher and other educators. Repeatable to 8.00 credits. F,S.

**T&L 495. Independent Study. 1-4 Credits.**

This course is designed for the interested student's pursuit of an area of study not offered through regular courses. In addition, students can continue to pursue subject matter covered in courses in greater depth. Repeatable to 8.00 credits.

**T&L 498. Special Projects. 1-8 Credits.**

Course number reserved for committee approved proposals, independent study, special colloquia, or experimental courses.

**T&L 500. The Professional Teacher. 3 Credits.**

This class is an introduction to the study of education. It will provide students the opportunity to explore the many facets of the teaching profession and to consider its value as a personal career choice. The course will study current issues and trends in education to include curricular and instructional planning, creating a positive learning environment, addressing diverse learners, and the professional skills and responsibilities of teachers. Through reflection on the teacher, the learner, the subject matter, and the context within one teaches, the student will begin to develop a personal philosophy of teaching and learning. Prerequisite: Admission to Master of Science in Curriculum Instruction. F.

**T&L 511. Assessment in ECE. 3 Credits.**

This course examines the construct and practice of assessment for teaching in birth to third-grade learning environments. The course considers the critical issues related to assessment and accountability in schools, focusing on why assessment is necessary, who the various assessment audiences are, what kind of assessment information is useful for each, and the time frame appropriate for such assessment information. Students study a variety of assessment methods currently used to evaluate teaching and learning in classrooms. They also discuss ways to communicate formative information about student progress to families, collaborate with colleagues to use assessment results to modify grade-level curricula for children with diverse abilities, and advocate for culturally, linguistically, and developmentally-appropriate forms of assessment. S.

**T&L 513. Linguistics for ELL Teachers. 3 Credits.**

This course introduces the complexities of human language through the study of phonetics, phonology, morphology, syntax and semantics. Additional topics addressed include the brain and language, history of the English language, psycholinguistics, writing systems and language in social contexts. SS.

**T&L 514. Introduction to Multilingual Education. 3 Credits.**

This course explores language education models, programs and policies with an emphasis on English language learners (ELLs). Political, legal, historical, and cultural contexts of multilingual education will be discussed with a focus on both U.S. and global challenges.

**T&L 515. Middle School Curriculum. 3 Credits.**

This course examines the middle school curriculum and instructional strategies as well as the needs of early adolescents. The course focuses on the roles teachers play in incorporating a guided, interdisciplinary, collaborative team approach. The studies include the components of curriculum teaming, advisory, exploration, learning communities) and instruction (differentiation, cooperative learning, learning styles, instructional strategies) incorporated in middle schools.

**T&L 516. Philosophy and Foundations of Middle School Education. 3 Credits.**

This course examines the historical and philosophical background of middle level education. The focus is on the roles teachers/administrators play in incorporating this guided, interdisciplinary, collaborative team approach that assists students during these fundamentally transformative years. The course looks at the philosophical aspect of the curriculum and instructional component. The studies explore contemporary issues associated with the middle school as well as the adaptations necessary for special circumstances affiliated with middle schools.

**T&L 517. Social Emotional Learning & Guidance. 3 Credits.**

This course is designed to offer strategies for caregivers to support young children's positive social and emotional development, behavior, and learning through the exploration of how early experiences shape development. The emotional and social development of children, including the causes, expressions, prevention and management of challenging behaviors in all children birth to age eight are examined. Emphasis is placed on caregiver/family/child relationships, positive emotional/social environments, developmental implications, adverse childhood risk factors, and intervention strategies. Students will identify factors influencing emotional/social development, utilize screening measures, and design positive behavioral supports. SS.

**T&L 518. Curriculum and Methods for Teaching STEM. 3 Credits.**

A study of current trends and practices associated with teaching and assessing inquiry-based science and engineering design in PK - 12th grade classrooms. Course activities include readings and resources that delve into STEM curriculum, pedagogy, best practices, hands-on activities, exploring strategies to meet the needs of diverse learners, and using STEM assessments to inform instruction. F,S.

**T&L 519. Social Studies in the Elementary School. 3 Credits.**

A study of current trends and practices associated with teaching and assessing social studies in elementary classrooms.

**T&L 520. Curriculum and Instruction in the Elementary School. 4 Credits.**

A study of processes for planning, implementing, and evaluating curriculum and improving instruction in elementary schools.

**T&L 521. Differentiated Instruction. 3 Credits.**

An introduction to the principles of differentiated instruction. Topics of study include: brain-based learning, responsive instructional and assessment strategies, linking curriculum standards to learner needs, organizing and managing a differentiated classroom, and relevant resources for implementation.

**T&L 522. Mathematics in the Elementary School. 3 Credits.**

A study of current trends and practices associated with teaching and assessing inquiry-based math in elementary classrooms.

**T&L 523. Literacy Instruction for English Language Learners. 3 Credits.**

This course addresses the foundations of teaching English language and literacy to English Language Learners (ELLs). Topics will include practices for reading and writing instruction, vocabulary development, assessment of reading and writing, choosing literature for ELLs, and the incorporation of media and technology in ELL literacy instruction. SS.

**T&L 524. Reading in the Content Areas. 2 Credits.**

How and why reading should be taught in the content areas (i.e. Social Studies, Science, Mathematics, etc.). Research studies in the field of content reading and a variety of instructional practices are reviewed.

**T&L 525. Writing in the Classroom. 3 Credits.**

Based upon current scientific research, this course examines the foundational knowledge of the writing process and structures, and explores the relationship among standards, curriculum, explicit and systematic approaches to writing instruction, assessment, and the growth of diverse student writing. SS.

**T&L 526. Play in Development and Early Childhood Education. 3 Credits.**

This course explores the role of play in cognitive, physical and social-emotional development, and the way in which play is incorporated into educational and other programmatic settings. Students will explore how assessment of play indicates a child's development, and they will use assessment to promote Developmentally Appropriate Practices (DAP) for PreK-Grade 3 (ages 3-8) learners.

**T&L 527. Curricular Foundations in Early Childhood Education. 3 Credits.**

This course examines the historical, philosophical, cultural, race, class, and gender influences on curriculum in early childhood, including the philosophy and mission of the Department of Teaching and Learning.

**T&L 528. Children's and Young Adult Literature in the Classroom. 3 Credits.**

This course explores the major area of literature for children and young adults in response to two questions: What is the range of literature available for children and young adults today? In what ways might children's and young adult literature be used in the classroom to promote culturally-relevant literature and literacy growth?. SS.

**T&L 529. Language Development & Cognition in Children. 3 Credits.**

This course provides foundational information about language and cognitive development in children. The course content will also analyze typical and atypical language and cognitive development. The focus of the course will include children birth to age eight. .

**T&L 530. Foundations of Reading Instruction. 3 Credits.**

This course focuses on the relationship between reading theory, research, contemporary issues and instructional practice. Emphasis is placed on strategic systems related to effective reading, instructional approaches that support the development of these strategic systems and assessment as collecting evidence of effective reading behaviors. F,S.

**T&L 531. Early Literacy Development and Instruction. 3 Credits.**

A study of early literacy processes including phonemic and print awareness, word recognition, comprehension, and writing. Emphasis is on reviewing current research and theory, assessment and instruction practices, and bridging language and literacy development in literacy rich environments.

**T&L 532. Leading K-12 Educator Learning. 3 Credits.**

This course overviews the theories and approaches to instructional coaching and teacher leadership to support educational program visions, goals and institutional commitment as a way to transform schools into organizations focused on accelerated teacher effectiveness and improved student learning. It prepares teachers to develop the knowledge, skills, and dispositions for effective teacher leadership and coaching. On demand.

**T&L 533. Media for Children and Young Adults in Cultural Context. 3 Credits.**

This graduate level course explores teaching literacy in the context of cultural morality debates that impact educators and communities. Students will explore how traditional and contemporary approaches to teaching literature, nonfiction, and digital media interact with cultural concepts of childhood and adolescence. Students will explore children's and young adult literature throughout history from the Victorian cult of childhood to the 1950s comic book senate hearings to the 1990s religious panic around the Harry Potter novels to more recent issues like drag queen story hours. By the end of the course, students should understand the factors that often turn young people's media (and the educational situations in which they often appear) into cultural battlegrounds. SS.

**T&L 534. Basic Reading Diagnosis and Remediation. 2 Credits.**

Focuses on common causes of reading disability, methods of diagnosis, and corrective reading programs in the classroom. Corequisite: T&L 583.

**T&L 535. Advanced Reading/Language Arts Diagnosis and Remediation. 2 Credits.**

Analysis of interrelationships of learning difficulties in language arts areas and procedures for remediation. Prerequisite: T&L 530 and T&L 534.

**T&L 536. Innovations in English Language Arts Instruction. 3 Credits.**

This course considers the current curricular trends and research-based best practices in teaching English Language Arts. Students will critically examine and apply current instructional approaches in teaching English language and vocabulary, classroom discourse practices, and digital literacies. We will consider the ways various instructional methods support the advancement of literacy development for all students, considering ways to modify and adapt curriculum to meet the cultural and linguistic diversity of today's classrooms. On demand.

**T&L 537. ELL Methods and Materials. 3 Credits.**

This course explores current methods and materials in ELL education, with a focus on teaching academic language and sheltered content instruction. F,S,SS.

**T&L 538. Supervision of Student Teaching. 2 Credits.**

For supervisors and directors of student teaching in colleges and cooperating schools. Principles and practices on how to provide the most beneficial experiences for student teachers.

**T&L 539. College Teaching. 3 Credits.**

Explores learning styles and teaching styles, the components and responsibilities involved in college teaching, methods of teaching and motivating students, and current issues related to instruction in the college classroom.

**T&L 540. Theory and Philosophies of Curriculum in Schools. 3 Credits.**

This course explores the historical development of the K-12 curriculum, the philosophical and theoretical aspects applied to curriculum, and the social conditions that impact curriculum.

**T&L 542. Models of Teaching. 3 Credits.**

This course focuses on various models of teaching: social interaction, information-processing, inquiry and behavioral. The purpose of the course is to provide teachers with a variety of instructional models related to meaningful learning experiences for students.

**T&L 543. Scholarly Writing. 3 Credits.**

Designed to assist students with learning the art of scholarly writing, this course will aid students in designing, formatting, and completing research-based and other scholarly writing projects, as well as understanding the rules and norms of academic publishing.

**T&L 545. Adult Learners. 3 Credits.**

This course will cover theories of adult development, current research on adult learners, ways of assessing the needs and interests of adult learners, and ways of creating environments in which adult learners can thrive.

**T&L 547. Technology in Higher Education. 3 Credits.**

Students will examine the various uses and integration of technology and media in higher education by faculty in their attempt to engage learners with each other, the course content, and with instructors.

**T&L 548. The Professoriate. 3 Credits.**

This course is a study of the development of the American professoriate by way of historical, scholarly, popular, and contemporary perspectives. It also examines the transition of new faculty members to their initial academic appointment.

**T&L 549. Doctoral Seminar. 1 Credit.**

The doctoral seminar focuses on specific topics related to teaching, learning, and leadership. Specific course content includes the requirements and expectations for completing the doctoral program and writing a successful dissertation. S/U grading. SS.

**T&L 550. Assessment and Evaluation in ELL Education. 3 Credits.**

This course combines readings and theoretical discussion of assessment with hands-on experience in assessing ELLs. Students will learn how to use a variety of formal and informal assessments with a focus on how to use assessment data in planning instruction. Topics will include classroom-based assessments, language proficiency testing, testing accommodations for ELLs, and assessment of ELLs for special education and gifted education, and ELL program evaluation.

**T&L 551. Second Language Acquisition for ELL Teachers. 3 Credits.**

This course will explore the socio- and psycho-linguistic aspects of interlanguage by studying the theories and research of first and second language acquisition. Students will examine the nature of learners and their individual differences during the stages of language development, with a focus on children and K-12 classrooms. F.

**T&L 552. Online Teaching Practice & Innovation. 3 Credits.**

This course examines contemporary online teaching practices and has a focus on "small" research-based teaching strategies that have an impactful effect on online classroom engagement and learning. SS.

**T&L 553. Collaborative Relationships: Home, School and Community. 3 Credits.**

A course appropriate for anyone working with families, early childhood educators, general educators, special educators, related service personnel, administrators and outside agency personnel. Topics covered include: (1) the various models of collaboration and consultation and the stages of each; (2) communication skills; (3) problem-solving; (4) conflict management; (5) diverse perspectives; (6) information collection procedures; (7) supervisory skills; (8) family characteristics and structure across the lifespan; (9) family focused intervention; (10) school choices; and (11) school issues such as poverty, domestic violence, teasing, bullying, and school violence.

**T&L 554. Nature of Science and Science Education. 3 Credits.**

T&L 554 surveys issues that are central to science education and research through an exploration of the works of twentieth century philosophers of science who were the most influential in shaping thinking about science in the education community. Course discussion is guided by relevant readings from history and philosophy of science, and science education. F.

**T&L 555. Issues of Motivation and Equity in STEM Education. 3 Credits.**

Examines how the intersection of gender, culture, and societal stereotypes impact student motivation in STEM education. This examination highlights how comingling factors shape not only perceptions of science knowledge but of membership and participation in STEM learning communities. In this course, we will focus on strategies that reduce barriers and increase representation, relevance, and responsiveness in STEM classrooms in order to raise student motivation. S.

**T&L 556. Constructivism in STEM Teaching and Learning. 3 Credits.**

Delves into issues of teaching and learning with a focus on perspectives about how learners construct complex understandings, including core ideas in STEM. Relevant readings from science and mathematics education are explored. The course offers participants an opportunity to apply practices discussed by positioning them as interviewers to probe learners' conceptions of a STEM topic. S.

**T&L 557. An Introduction to Engineering Education. 3 Credits.**

Integrating engineering into K-12 classrooms has the potential to impact students on a broad scale - by improving their learning and engagement, increasing their awareness of engineering's capacity for improving societal issues, and by introducing them to engineering as a career trajectory. This course will focus on concepts and curriculum related to the engineering design process and the various domains of engineering, both in theory and in practice. It will introduce students in the course to effective strategies for teaching engineering across content areas, for making engineering accessible to all learners, and for providing direct connections to standards and assessment. Students in the course will learn about the engineering design process through hands-on learning, as well as how to plan meaningful engineering design lessons and tasks, how to facilitate learning through engineering, and how to apply STEAM concepts within engineering. S.

**T&L 558. Middle School Science and Engineering Lab1:Solids. 2 Credits.**
**T&L 559A. MS Sci.Eng-2: Solids. 3 Credits.**

Prerequisite: T&L 558, admission to Graduate School, ND Teacher licensure and Admission to program "Improving Math and Science Literacy of Middle and High School Students of North Dakota Through Teacher-Faculty Partnerships".

**T&L 559B. MS Sci.Eng-2: Solids. 3 Credits.**

Prerequisite: T&L 558, admission to Graduate School, ND Teacher licensure and Admission to program "Improving Math and Science Literacy of Middle and High School Students of North Dakota Through Teacher-Faculty Partnerships".

**T&L 560. Computer Science for Teachers I. 4 Credits.**

An introduction to computer science, with problem solving, algorithm development, and structured programming in a high-level language. Emphasis on learning how to design, code, debug, and document programs, using techniques of good programming style. Includes laboratory. Meets with CS 160. Prerequisite: Admission to the Computer Science Education Graduate Certificate Program. F,S,SS.

**T&L 561. Computer Science for Teachers II. 4 Credits.**

A broadening of foundations for computer science with advanced concepts in computer programming. Includes an introduction to data structures, analysis of algorithms, and the theory of computation. Includes laboratory. Meets with CS 161. Prerequisite: Admission to the Computer Science Education Graduate Certificate Program and T&L 560.

**T&L 562. Specialized Methods: Computer Science. 2 Credits.**

This course for current K-12 educators explores computer science as a discipline that encourages inquiry, creativity, and collaboration. Given that the nature of computing is investigative, the computer science activities will be hands-on to gain insights about teaching and learning computing concepts in classroom settings. Students will examine a variety of computing tools, virtual environments, and other instructional resources that support learning across STEM disciplines. Students will learn that pedagogical methods in computer science require intellectual rigor in order to develop lessons that are relevant to secondary students and pertinent to our culturally diverse world today. Prerequisite: T&L 560. Prerequisite or Corequisite: T&L 561. SS.

**T&L 563. K-12 Classroom Based Coaching Practices. 3 Credits.**

This course focuses on the professional learning and growth of an instructional coach in the K-12 educational setting. Individuals will develop and practice instructional coaching skills of leading a coaching cycle, providing feedback on instruction, leading assessment data dialogue, and facilitating difficult conversations focused on instructional improvement. On demand.

**T&L 564. Designing Professional Development for K-12 Educators. 3 Credits.**

This course focuses on developing the knowledge and skills required for designing and leading professional development for K-12 teachers. Individuals will develop a professional development plan aimed to directly support the professional learning of teachers and key school personnel. On demand.

**T&L 565. K-12 Instructional Coaching Clinical. 3 Credits.**

This course is a supervised instructional coaching clinical experience and presents an opportunity for students to apply the skills and concepts of effective instructional coaching and professional development in an educational setting. Prerequisite: T&L 532 and T&L 564. On demand.

**T&L 566. Brain in Memory and Learning. 3 Credits.**

Prerequisite: Admissions to Grad School.

**T&L 567. Language Structure and Analysis for ELL Teachers. 3 Credits.**

This course explores the grammatical and discourse structures of the modern English language, analysis of grammar and discourse with a focus on specific problem areas for ELLs, and pedagogical implications for English language development.

**T&L 568. Research and Advocacy in TESOL. 3 Credits.**

This course prepares teachers to both understand and conduct research in TESOL. Emphasis will be placed on using research data to advocate for changes and improvement in ELL education.

**T&L 569. Action Research. 3 Credits.**

The study of the philosophy and methods of action research. Emphasis is focused on analysis of and reflection on one's teaching for the purpose of improvements in student learning. Prerequisite: Graduate status. S.

**T&L 570. Adverse Childhood Experiences and Resilience. 3 Credits.**

Course topics include Adverse Childhood Experiences (ACEs), social-emotional foundations in early childhood development, resilience, family engagement strategies, and characteristics of children with behavioral disorders in schools. This course is appropriate for anyone working with families, early childhood educators, general educators, special educators, related service personnel, administrators and outside agency personnel. F,S.

**T&L 571. Teacher Education: Focus on the Teacher. 3 Credits.**

Practices, issues, and trends in the design and implementation and assessment of programs for the preparation and development of K-12 teachers. F, even years.

**T&L 572. Teacher Education: Focus on the Learner. 3 Credits.**

The study of teacher education in relation to the lives of P-12 students. This course includes the examination of children and their lives through aspects of race, religion, socioeconomic, linguistics and age, and considers educational implications for preservice and inservice teachers.

**T&L 573. Middle School Science and Engineering Lab2:Liq/Gas. 2 Credits.**

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**T&L 574. MS Sci.Eng-4: Liquid/Gas. 3 Credits.**

Prerequisite: T&L 573, admission to Graduate School, ND Teacher licensure and Admission to program "Improving Math and Science Literacy of Middle and High School Students of North Dakota Through Teacher-Faculty Partnerships".

**T&L 575. Middle School Science and Engineering Lab3:Mot/Elec. 2 Credits.**

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**T&L 576A. MS Sci.Eng.-6:Motion/Electric. 3 Credits.**

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**T&L 576B. MS Sci.Eng.-6:Motion/Electric. 3 Credits.**

Prerequisite: T&L 576A.

**T&L 577. Assessment of Learning. 3 Credits.**

This course addresses the theory and practice of assessment, specifically the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of educational experiences.

**T&L 578. Curriculum and Pedagogy in Indigenous Education. 3 Credits.**

This course is designed to examine indigenous ways of thinking, knowing, and learning through culturally responsive, and culturally driven pedagogy. The students will study both the theory and practical learning environment applications of indigenous knowledge systems, culturally sustaining curriculum, indigenous models of education, and critical pedagogy. F.

**T&L 579. Inquiry into Professional Practice. 3 Credits.**

Students in TL 579 will explore theoretical constructs such as Living Theory, Self-Study, and Critical Theory to understand the role of professional and practitioner inquiry in researching and improving their own practice. Students will plan and conduct an in-depth inquiry project culminating in a case study within their professional setting. Prerequisite: TL graduate status. S.

**T&L 580. Practicum in Schools. 1-4 Credits.**

Practicum in study of desirable school practices, observations in nearby schools, and application of research findings in solving practical problems. Prerequisite: Appropriate foundational and major area courses, and consent of the instructor and advisor. Repeatable.

**T&L 581. Resident Internship. 3 Credits.**

A full-time, year-long internship experience conducted in a cooperating school district. Resident teachers are fully responsible for a classroom as well as completing their graduate studies for a master's degree. Prerequisite: Participation in the summer program prior to the internship and teaching licensure (see dept for approval). F.

**T&L 582. Resident Internship. 3 Credits.**

A full-time, year-long internship experience conducted in a cooperating school district. Resident teachers are fully responsible for a classroom as well as completing their graduate studies for a master's degree. Prerequisite: Participation in the summer program prior to the internship and teaching licensure (see dept for approval). S.

**T&L 583. Reading Clinic. 2 Credits.**

Supervised clinic practicum in diagnosis of reading difficulties, report writing, and instruction. Includes school consultations. Corequisite: T&L 534.

**T&L 584. Internship in Education. 1-8 Credits.**

This is a culminating experience primarily for Sixth year and Doctoral students. The internships will be identified in one of the following sub-areas: (A) Educational Administration, (B) Special Education, (C) Curriculum, (D) Educational Research, or (E) Teacher Education. Prerequisite: Appropriate foundational, cognate, and major area coursework and consent of advisor and instructor. Repeatable.

**T&L 586. Research in Teacher Development and Professionalization Policies. 3 Credits.**

Graduate students will explore research on many of the policy issues that surround teachers and shape their work lives. The nation's public schools and nature of teachers' work are directly affected by broader economic, political, and social forces and transformations. Explorations will include how these factors come together, how they have been studied in previous scholarship, and the implications for teachers. Through course readings, seminar style discussions, and independent work, students will gain an understanding of the complex nature of teacher development, professionalization policies, and develop a line of research inquiry in this area. F,S.

**T&L 587. Educational Research Apprenticeship (ERA). 1-3 Credits.**

Educational Research Apprenticeship (ERA) provides doctoral graduate the opportunity for faculty mentorship on educational research. The student focuses on a topic of research, receives mentoring from faculty, develops their research skills, and gains a greater understanding of research in education. Repeatable to 7.00 credits. F,S,SS.

**T&L 589. Professional Development: Resident Teacher Program. 1 Credit.**

This field-based experience provides mentoring and coaching, translates baccalaureate theory and research into practice, and requires active participation in the school placement and classroom setting. Issues and topics relevant to first year teachers and graduate education are emphasized through field work and discussions. Prerequisite: Admission into the Elementary Education Resident Teacher Program. SS.

**T&L 590. Special Topics. 1-4 Credits.**

Exploration of special topics in the study of education not regularly included in available course offerings. May be repeated for different topics. Prerequisite: Consent of instructor or advisor. Repeatable.

**T&L 591. Readings in Education. 1-4 Credits.**

Designed primarily for advanced graduate students. May be repeated for different topics. Prerequisite: Consent of instructor and advisor. Repeatable.

**T&L 593. Independent Projects. 1-4 Credits.**

Repeatable.

**T&L 596. Individual Research in Education. 1-4 Credits.**

Prerequisite: Consent of instructor and advisor. Repeatable.

**T&L 995. Scholarly Project. 2-3 Credits.**

The scholarly project demonstrates critical analysis and application of information and experiences gained throughout the program of study. The project allows students to demonstrate scholarly skills in an integrated manner that is directly related to their roles as teachers, program evaluators, and action researchers. The scholarly project must be approved by the student's adviser. F,S,SS.

**T&L 996. Continuing Enrollment. 1-12 Credits.**

Repeatable. S/U grading.

**T&L 997. Independent Study. 2 Credits.**

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**T&L 998. Thesis. 1-9 Credits.**

Repeatable to 9.00 credits.

**T&L 999. Dissertation. 1-15 Credits.**

Repeatable to 15.00 credits.