

# CURRICULUM AND TEACHING (CTGE)

## **CTGE 0101. Prerequisite Completion. (0 Credits)**

### **CTGE 0701. Master's Comprehensive Exam/Assessment. (0 Credits)**

Part one of the Master's comprehensive exam or assessment for programs in the Division of Curriculum and Teaching.

### **CTGE 0703. Intern Fellowship Portfolio. (0 Credits)**

Development and review of professional portfolio for elementary teacher candidates in the Intern Fellowship Program.

### **CTGE 0704. Childhood Education Portfolio. (0 Credits)**

Development and review of professional portfolio for childhood education teacher candidates in MST certification programs. Candidates must demonstrate that they have met childhood education program goals, as well as program goals, of specific certification areas.

### **CTGE 0707. Early Childhood Education Portfolio. (0 Credits)**

Development and review of professional portfolio for early childhood education teacher candidates in MST certification programs. Candidates must demonstrate that they have met early childhood education program goals as well as program goals of specific certification areas.

### **CTGE 0708. Adolescence Special Education Portfolio. (0 Credits)**

Development and review of professional portfolio for adolescence special education candidates that must demonstrate that they have met program goals and certification requirements.

### **CTGE 0709. Adolescence Education Portfolio. (0 Credits)**

Development and review of professional portfolio for adolescence education teacher candidates in MST certification programs. Candidates must demonstrate that they have met adolescence education program goals, as well as program goals of specific certification areas.

### **CTGE 0710. Portfolio for Literacy Education. (0 Credits)**

Development and review of professional portfolio for candidates in the Language and Literacy Education programs, Birth–Grade 6; Grades 5–12.

### **CTGE 0712. Portfolio for TESOL. (0 Credits)**

Portfolio for TESOL.

### **CTGE 0715. Young Readers Portfolio. (0 Credits)**

### **CTGE 0718. Childhood Special Education Portfolio. (0 Credits)**

Development and revision of professional portfolio for Childhood Special Education teacher candidates in the MEd program.

### **CTGE 0720. Portfolio Extension. (0 Credits)**

This course is for candidates who require an additional semesters to complete the professional portfolio. The candidate should continue to work under the guidance of a faculty member in their program. Candidates must demonstrate they have met the goals specific to their academic program and certification area.

### **CTGE 0900. Permanent Matriculation. (0 Credits)**

Students are admitted to doctoral degree programs on a provisional matriculation basis. During the semester in which provisional doctoral students expect to complete their 12th to 15th credit of doctoral work, they must apply for permanent matriculation status by enrolling in either ASGE 0900, CLGE 0900, CTGE 0900, or PSGE 0900. Students will be evaluated by the faculty of the appropriate division and will be continued in the program only on the recommendation of the faculty of the division and with the approval of the associate dean for academic affairs. Consult your adviser or division chair for additional information on permanent matriculation.

### **CTGE 0901. Doctoral Comprehensive Exam/Assessment. (0 Credits)**

Part one of the doctoral comprehensive exam or assessment for programs in the Division of Curriculum and Teaching.

### **CTGE 0902. Doctoral Comprehensive Exam/Assessment. (0 Credits)**

Part two of the doctoral comprehensive exam or assessment for programs in the Division of Curriculum and Teaching.

### **CTGE 0999. C&T Proposal Acceptance. (0 Credits)**

During the semester the dissertation proposal is completed.

### **CTGE 4200. Field Experience Seminar. (1 Credit)**

In this seminar, students examine their profession and chosen area of teaching certification. The course provides students with the opportunity to become aware of the many roles of a teacher. Students complete 2 or 3 hours of field experience per week in their grade level of teacher certification.

### **CTGE 4202. Soph Field Exp Sem 1. (1 Credit)**

Students examine their profession and chosen area of teaching certification. The course provides students with the opportunity to become aware of the many roles of a teacher. Students complete a 2-3 hour per week field experience in grade level of teacher certification.

**Attribute:** TE.

### **CTGE 4203. Soph Field Exp Sem II. (1 Credit)**

Students examine their profession and chosen area of teaching certification. The course provides students with the opportunity to become aware of the many roles of a teacher. Students complete a 2-3 hour per week field experience in grade level of teacher certification.

**Attribute:** TE.

### **CTGE 4204. Jr Field Exp Sem 1. (1 Credit)**

Students examine their profession and chosen area of teaching certification. The course provides students with the opportunity to become aware of the many roles of a teacher. Students complete a 2-3 hour per week field experience in grade level of teacher certification.

**Attribute:** TE.

### **CTGE 4205. Jr Field Exp Sem II. (1 Credit)**

Students examine their profession and chosen area of teaching certification. The course provides students with the opportunity to become aware of the many roles of a teacher. Students complete a 2-3 hour per week field experience in grade level of teacher certification.

**Attribute:** TE.

### **CTGE 4206. Sr Field Exp Sem 1. (1 Credit)**

Students examine their profession and chosen area of teaching certification. The course provides students with the opportunity to become aware of the many roles of a teacher. Students complete a 2-3 hour per week field experience in grade level of teacher certification.

**Attribute:** TE.

### **CTGE 4207. Sr Field Exp Sem II. (1 Credit)**

Students examine their interests in the teaching profession and chosen area of teacher certification. The course provides students with the opportunity to become aware of the many roles of a teacher. Students complete a 2-3 hour per week field experience in grade level of teacher certification.

**Attribute:** TE.

**CTGE 5065. Integrating Technology Into Elementary Education. (1 Credit)**

This course assumes introductory knowledge, skills, and understanding of concepts related to technology including the ability to access, generate, process and transfer information using appropriate technologies as well as familiarity with various software programs. This course will assist students in planning, designing, implementing and assessing learning environments and experiences supported by technology. This course will emphasize computer capabilities for teaching, classroom management, the use of assistive technology and communicating electronically from a K-6 perspective.

**CTGE 5066. Teaching Social Studies to Children. (3 Credits)**

This course in social studies education provides a conceptual and operational framework for reflective, pre-service teachers, systematically reflecting on research, theory, and practice as these influence teacher decision-making for enhancing student learning in social studies.

**CTGE 5155. Special Education Foundations: Past, Present, Future. (3 Credits)**

This course will introduce concepts and skills needed for teachers to be able to include students with exceptional needs in regular classes. We will study the nature and needs of students with a full range of abilities and disabilities and the individualized educational program the school must provide for them. The focus of this course will be on adapting environments and instruction to accommodate the needs of diverse student populations. Students will work in small groups to apply critical issues and develop the attitudes and skills needed to work in teams.

**Mutually Exclusive:** CTGE 6305, PSGE 5301.

**CTGE 5157. Assessment Strategies for Young Children with Disabilities. (3 Credits)**

This course provides an overview of assessment approaches and practices in early intervention and early childhood special education. Students will obtain skills in administering formal and informal assessments, implementing culturally unbiased instruments and procedures, and interpreting and communicating assessment results for planning intervention and evaluating instruction and programs. The role of the family in the assessment process is emphasized.

**CTGE 5159. Assessment of All Children With Disabilities. (3 Credits)**

This course prepares students to use formal and informal educational diagnostic methods for assessment, analysis and evaluation of children with disabilities. Issues of non-biased assessment and instructional implications are included.

**CTGE 5160. Instructional Modifications for Adolescents in Inclusive Classrooms. (3 Credits)**

This course will prepare teachers of adolescents to include students with disabilities and special health care needs in their regular content-area classes. Primary focus is on adapting and individualizing instruction and designing assessments to accommodate these students. In addition, the course will address refining skills for improving reading comprehension of content-area text and for collaborating with others to identify strengths, and preparing students with disabilities and special needs to their highest levels of academic achievement and independence. Prerequisite: CTGE 5154 Including Exceptional Students.

**CTGE 5161. Differentiating Instruction for All Students. (3 Credits)**

This course focuses on the development of curricula that is provided in a variety of educational settings. This course assumes that a classroom includes students of different physical and cognitive abilities, students of different racial ethnic, religious, and socio-economic origin, and students who demonstrate individual learning styles. The emphasis of this course is on the teaching-learning process via a decision-making model for differentiating instruction. This process considers the materials, presentation style, organization of classroom instruction (small group, individual, ect.), and the use of technology in differentiating curricula. Recognizing instruction as a collaborative process, this course will examine ways to build collaborative skills needed to establish positive professional relationships with parents, psychologists, social workers, administrators, community agencies, and paraprofessionals.

**CTGE 5165. Consultation and Co-Teaching in Collaborative Classrooms. (3 Credits)**

Develop the knowledge, skills, and professional dispositions related to effective communication and shared problem-solving used daily in supporting students, families, and the community. Practice facilitation roles and responsibilities in key school structures, including IEP meetings, pre-referral intervention assistance teams, RTI teams, paraeducator partnerships, transition planning, and collaborative or co-teaching. Learn how to use positive behavior intervention and supports, functional behavioral analysis, and behavioral consultation. Plan how to develop a collaborative classroom culture where diversity strengthens a learning community.

**CTGE 5167. Behavior Interventions and Effective Classroom Management. (3 Credits)**

This course will prepare teachers in special education to support students with disabilities in multicultural settings through the use of positive behavior intervention and supports, functional behavioral analysis, behavioral consultation, explicit instruction, current issues in behavior management. This course will also enable teachers to establish and create a safe, positive, supportive classroom environment in the classroom through behavior change and management.

**CTGE 5170. Assessment of All Learners with Disabilities. (3 Credits)**

This course prepares students to use formal and informal educational diagnostic methods for assessment, analysis, and evaluation of children with severe disabilities. Issues of non-biased assessment and instructional implications are included. Students will conduct an in-depth assessment project (RTI) in which they will use multiple assessment methods to evaluate an at-risk student or student identified with special needs in reading, writing, or mathematics, and then make recommendations for services and instruction.

**CTGE 5175. Teaching English Language Arts and Social Studies in Inclusive Adolescence Classrooms. (3 Credits)**

This course has been developed to meet the new state requirements for teachers of students with disabilities in grades 7–12. Through this course, candidates will develop the skills necessary to provide specifically designed instruction to students with mild, moderate, severe, and multiple disabilities, including those using assistive technology. They will know and be able to use research-based teaching methods of core content areas, including instructional technology, and acquire sufficient pedagogy skills to teach secondary English language arts and social studies in a supportive role. In addition, candidates will learn how to provide access to the general education curriculum through modifications, accommodations, remediation, and acceleration.

**CTGE 5176. Teaching Math and Science in Inclusive Adolescence Classrooms. (3 Credits)**

This course has been developed to meet the state requirements for teachers of students with disabilities in grades 7–12. Through this course, candidates will develop the skills necessary to provide specifically designed instruction to students with mild, moderate, severe, and multiple disabilities, including those using assistive technology. They will know and be able to use research-based teaching methods of core content areas, such as instructional technology, and acquire sufficient pedagogy skills to teach secondary math and science in a supportive role. In addition, candidates will learn how to provide access to the general education curriculum through modifications, accommodations, remediation, and acceleration.

**CTGE 5200. Field Experience Seminar: Issues in Reflective Practice. (0 Credits)**

This seminar is taken concurrently with first field placement. Along with a focus on issues in teaching practices, topics such as behavior, social/emotional learning, and EDTPA are discussed. Field experiences progress from observation to guided practice with small and whole groups of students. Teacher candidates are assigned to field experiences across a variety of settings and grade levels appropriate to their area of study. The seminar is intended as a vehicle for critical and collaborative reflection, through which theory can be integrated with practical experiences. The seminar also provides a structure for organizing workshops in the prevention of child abuse, drug and alcohol abuse, and violence, and for developing the skills and knowledge necessary to provide a sense of community in a safe, respectful, and nurturing classroom environment.

**CTGE 5201. Student Teaching Seminar: Issues in Reflective Practice. (3 Credits)**

The seminar is taken concurrently with second student-teaching placements. Along with a focus on issues in teaching practices, topics such as behavior, social/emotional learning, and EDTPA are discussed. Student-teaching experiences progress from guided practice with small and whole groups of students to full-time student teaching with ongoing responsibilities for curriculum and instruction. Teacher candidates are assigned to student-teaching experiences across a variety of settings and grade levels appropriate to their area of study. The seminar is intended as a vehicle for critical reflection through which theory can be integrated with practical experiences.

**CTGE 5203. Field Experience Seminar in Service. (0 Credits)**

This seminar/field placement focuses on integrating theory and practice in a setting and grade level appropriate to the candidate's area of study. Foci include observing and guided practice with small and whole groups of students, with the seminar designed as a vehicle for critical and collaborative reflection.

**CTGE 5205. Intern Fellows Seminar. (0 Credits)****CTGE 5210. Field Experience. (0 Credits)**

Zero credit and fee for TFA and specific grant programs.

**CTGE 5211. Practicum for In-Service Teachers. (0 Credits)**

Supervised student teaching in a setting selected under advisement. Analysis of innovative designs and application of theory to practice. Critical analysis of student competency through self-evaluation and supervisory feedback. Open only to students who already possess initial or professional certification.

**CTGE 5212. Teaching the Arts in Childhood Education. (1 Credit)**

Introduction to creative and expressive development in children, and to the theory and practice of appreciating and producing drama, movement, music, and the visual arts, as well as the integration of the arts into interdisciplinary curricula.

**CTGE 5216. L/T in Pr/El Grds: Soc St. (4 Credits)****CTGE 5222. Practicum for In-Service Teachers. (3 Credits)**

Supervised student teaching in a setting selected under advisement. Analysis of innovative designs and application of theory to practice. Critical analysis of student competency through self-evaluation and supervisory feedback. Open only to students who already possess initial or professional certification.

**CTGE 5224. Rdg Writ Lang Arts. (3 Credits)****CTGE 5227. Teaching Mathematics to Children. (3 Credits)**

This course in mathematics education provides a conceptual and operational framework for reflective, pre-service teachers, systematically reflecting on research, theory, and practice as these influence teacher decision-making for enhancing student learning in mathematics.

**CTGE 5230. Framework for Education for All Young Children. (3 Credits)**

A critical analysis of the theoretical and empirical bases for working in early childhood settings developed for young children with and without disabilities. Overview of legislation, program models, and program review.

**CTGE 5232. Early Childhood Curriculum and Assessment. (3 Credits)**

Conceptual analysis and evaluation of existing early childhood curricula, including emerging trends and issues, educational assessment of the young child, strategies and issues, formulation and implementation of educational goals and objectives, and instructional and behavioral.

**CTGE 5233. Early Learning Through Play. (3 Credits)**

This course focuses on creating, implementing, and assessing appropriate play experiences in diverse early childhood classrooms. The development of play and its potential for learning across the curriculum will be addressed, with emphasis on the preschool, kindergarten, and early primary grades. Helping families understand the value of play in early learning also will be included.

**CTGE 5234. Family, Community, and All Young Children. (3 Credits)**

This course critically examines the ecology of early childhood; the young child as a reactive and proactive agent in dynamic interaction with forces in the physical and social environment (family, home, neighborhood, media, legislation, child advocacy, etc.); the reciprocal relationship between early childhood education, family, and community.

**Mutually Exclusive:** CTGE 6320.

**CTGE 5242. Teaching Science and Technology to Children. (3 Credits)**

This course will provide opportunities to critically analyze recent concepts, theories, and practices in developing a science curriculum. Current trends, technologies, and technological issues and their impact on society will be explored. Emphasis will be placed upon gaining knowledge bases for the life, physical, and earth sciences. Opportunities will be provided to develop an understanding of instructional technologies as tools for reflective practitioners, and to evaluate their use and effectiveness.

**CTGE 5243. Teaching and Assessing Mathematics in Elementary Classrooms. (3 Credits)**

This course supports elementary mathematics educators in teaching all children developmentally appropriate topics in algebra, probability, statistics, geometry, and measurement. Attention will be given to designing and implementing a mathematics teacher work sample using manipulatives, technology, problem-solving strategies, and ongoing assessment to improve student learning.

**CTGE 5245. Children's Literature in a Multicultural Society. (3 Credits)**

Issues of equity and justice are explored through literature. Adult and children's literature are used to examine the concept of cultural pluralism—the values, traditions, and aspirations of various immigrant and ethnic groups. Introduction to various genres and uses of literature in the early childhood and childhood language arts program.

**CTGE 5247. Teaching Linguistically and Culturally Diverse Children. (3 Credits)**

Theory and practical approaches and strategies to make content relevant and understandable to students in mainstream classrooms, PreK-6th grade, who may lack English language proficiency, experience, and background.

**CTGE 5259. Contemporary Social Studies Education. (3 Credits)**

This course familiarizes students with the trends and issues facing the specific disciplines in the social studies. The course will examine trends, issues, and implications for the future of American history, global studies, government and politics, economics, anthropology, sociology, and psychology. A strong content base and an appreciation of contemporary issues will enable students to understand the current status of social studies and the implications for the future.

**CTGE 5261. Teaching and Assessing Social Studies: Adolescents. (3 Credits)**

This course focuses on recent developments and persistent issues of classroom practice in the teaching of secondary social studies, and on developing skills in teaching methods such as reflective inquiry, problem solving, critical thinking, decision-making, and assessment. Disciplines include anthropology, economics, geography, history, jurisprudence, political science, psychology, and sociology.

**CTGE 5270. Tchg Biology to Adol. (3 Credits)**

This course familiarizes students with a variety of methods and materials for teaching biology in the secondary schools. The development and analysis of the goals and content of a secondary biology course is emphasized using short- and long-range planning, adherence to curricular standards, assessment of student achievement and teacher effectiveness, instructional applications of technology, and other instructional methods and strategies. Course activities provide a basis for the development of competent biology teachers, including familiarity with relevant journals, issues, sources of information and instructional assistance, and opportunities to practice reflection. The goals and objectives of the course are in concert with the National Science Education Standards for professional development of learning biology content, learning to teach biology, lifelong learning, and integrated programs.

**CTGE 5271. Teaching and Assessing Biology: Adolescents. (3 Credits)**

This course familiarizes students with a variety of methods and materials for teaching biology in the secondary schools. The development and analysis of the goals and content of a secondary biology course emphasized using short- and long-range planning, adherence to curricular standards, assessment of student achievement and teacher effectiveness, instructional applications of technology, and other instructional methods and strategies. Course activities provide a basis for the development of competent biology teachers, including familiarity with relevant journals, issues, sources of information and instructional assistance, and opportunities to practice reflection in action.

**CTGE 5272. Teaching and Assessing Science in Adolescent Classrooms (7-12). (3 Credits)**

Teaching and assessing science in adolescent classrooms. This course familiarizes students with a variety of methods and materials for teaching science (biology, earth science, physics and chemistry) to adolescents.

**CTGE 5275. Integrating Math, Science, and Technology Education. (3 Credits)**

This is a culminating course in the secondary math and science education programs. It assumes a strong knowledge base in math and/or science content knowledge, pedagogical content knowledge and pedagogical knowledge. One goal of this course is to gain a deeper knowledge and understanding of models of intergrated teaching and learning such as project-based learning, problem-based learning, thematic and interdisciplinary teaching and learning. The second goal is to explore technology through intergrated learning activities and projects. In order to gain this knowledge and experience we will engage in dialouge, investigation, analysis and refelction of specific projects that integrate math, science and technology in secondary school. The course will culminate in teams of students developing an MST integrated project to be utilized in their own teaching practice.

**CTGE 5276. Clinical Seminar in Adolescence Science Education. (3 Credits)**

This course is designed to develop skills and habits of mind that are requisite to reflective practitioners of teaching. Course participants will engage in reflective discourse with peers and mentors to engage in a process of continuous learning in professional practice. The focus of the discussions, assignments, and mentoring/instructional activities will be on developing pedagogical content knowledge and skills needed to positively impact the life and learning of all students.

**CTGE 5277. Clinical Seminar in Behavioral Environments for Adolescent Exceptional Learners. (3 Credits)**

This course is designed to develop skills and habits of mind that are requisite to reflective practitioners who teach adolescent exceptional learners in behavioral environments. The course content will prepare teachers in special education to support students with disabilities in diverse settings through the use of positive behavior intervention and supports, functional behavioral analysis, behavioral consultation, and current strategies in behavior management. The course focuses on the application of empirically validated social interaction/communication and on behavioral interventions that are consistent with evidence-based practices. In addition, teacher candidates will develop an understanding of the processes integral to researching student knowledge while promoting student learning. This course is aligned to student teaching.

**CTGE 5279. Contemporary Science Education. (3 Credits)**

This course is designed to provide students with a familiarity with the origins and growth of the ideas of science education. It will also examine past, current, and emerging issues affecting science education.

**CTGE 5280. Teaching Chemistry to Adolescents. (3 Credits)**

This course integrates the knowledge and processes of chemistry with chemistry teaching and learning. Teachers build and develop reflective teaching and learning practices that will enable them to teach, support, and assess students of diverse interests, abilities, and culture. The goals and objectives of the course are in concert with the National Science Education Standards for professional development of learning chemistry content, learning to teach chemistry, lifelong learning, and integrated programs.



**CTGE 5281. Teaching and Assessing Chemistry: Adolescents. (3 Credits)**

This course integrates the knowledge and processes of chemistry with chemistry teaching and learning. Teachers build and develop reflective teaching and learning practices that will enable them to assess, teach, and support students of diverse interests, abilities, and cultures.

**CTGE 5283. Teaching and Learning Math in the Middle Grades. (3 Credits)**

In this course, students focus on understanding the learning challenges and requirements of middle school mathematics. It will focus on topics such as proportional reasoning, rational numbers and operations, and problem solving. Students will explore opportunities for discovery and investigation, strategic thinking, reasoning and justification, and efficient algorithms. They will also examine the use of a variety of tools intended to assist students in their learning.

**CTGE 5284. Teaching and Learning Foundational Topics and Math. (3 Credits)**

This course focuses on methods that foster student development in their understanding of algebraic and geometric mathematics as well as problem solving and modeling. A model of essential understandings for the developing mathematics teacher is provided in the diagram below. This course will expand a teacher candidate's knowledge in each area but it will focus on knowing and understanding algebraic and geometric thinking.

**CTGE 5286. Teaching and Assessing Mathematics in Adolescent Classrooms. (3 Credits)**

This course introduces a variety of instructional and assessment strategies for teaching mathematics to adolescents in grades seven through 12. Discussions center on methods of planning, teaching, and managing mathematics classes. This course is taught during the student-teaching experience.

**CTGE 5287. Clinical Seminar in Adolescence Mathematics. (3 Credits)**

This course is designed to develop skills and habits of mind that are requisite to reflective practitioners of teaching. Course participants will engage in reflective discourse with peers and mentors to engage in a process of continuous learning in professional practice. The focus of the discussions, assignments, and mentoring/instructional activities will be on developing pedagogical content knowledge and skills needed to positively impact the life and learning of all students.

**CTGE 5290. Teaching Physics to Adolescents. (3 Credits)**

This course integrates the knowledge and processes of physics with physics teaching and learning. Teachers build and develop reflective teaching and learning practices that will enable them to teach, support, and assess students of diverse interests, abilities, and cultures. The goals and objectives of the course are in concert with the National Science Education Standards for professional development of learning physics content, learning to teach physics, lifelong learning, and integrated programs.

**CTGE 5291. Teaching and Assessing Physics: Adolescents. (3 Credits)**

This course integrates the knowledge and processes of physics with physics teaching and learning. Teachers build and develop reflective teaching and learning practices that will enable them to assess, teach, and support students of diverse interests, abilities, and cultures.

**CTGE 5303. Lrng Environ: Ref Fld Exp. (3 Credits)**

This course helps teacher candidates develop an awareness of the complexity of teaching through field experiences. Emphasis is placed on classroom application of and critical and collaborative reflection upon concepts, techniques, and theories learned in courses and other structured learning experiences. The course examines teacher candidates' perceptions about the classroom and their learning that are necessary for anticipated learning to occur, ways that teachers can learn about their diverse students, approaches to student motivation, the concept of effective classroom instruction for students within the full range of abilities, the planning and writing of unit plans, and classroom management systems. It also provides a struture for developing the skills and knowledge necessary to provide a sense of community in a safe, respectful, and nurturing classroom environment.

**CTGE 5304. Learning Environments for Diverse Adolescents: Reflective Field Experience. (1 to 3 Credits)**

This course focuses on assuming a professional stance in regard to developing curriculum and interacting with students and colleagues in schools. Teacher candidates develop an understanding of the processes integral to reflecting on and researching student knowledge while promoting student learning. Students in this course will learn how to use research to examine, reflect on, and modify instruction to increase their knowledge and skills in teaching all students. Diversity and social justice are recurring themes for discussion and reflection. In addition, this course focuses on the development of the professional portfolio to meet the requirements for a comprehensive examination for the pedagogical portion of the program.

**CTGE 5305. Teaching Linguistically and Culturally Diverse Adolescent Students. (3 Credits)**

This course highlights instructional approaches and strategies for teachers of adolescents to promote oral and written English language development in culturally and linguistically diverse students. Emphasis is on creating an integrated classroom where the experiences, capacities, interests, and linguistic and cultural needs of adolescent English language learners are addressed. The course will examine language acquisition and development, as well as the impact of heritage and culture on the progress of English language learners.

**CTGE 5307. Research and Assessment While Teaching Adolescents. (3 Credits)**

In this course, teacher candidates develop an understanding of the processes integral to researching student knowledge while promoting student learning. Teacher candidates will review, create, evaluate, and interpret a wide range of standardized and alternative approaches to assessment, acquiring an abundant repertoire of strategies for assessing student learning in the classroom context, and using that information to plan or modify instruction. Students will learn how to use research to examine and reflect on their teaching, and to update knowledge and skills in teaching.

**CTGE 5308. Student-Teaching Adolescents: Research and Reflective Practice. (1 to 3 Credits)**

This course focuses on assuming a professional stance in regard to developing curriculum and interacting with students and colleagues in schools. Teacher candidates develop an understanding of the processes integral to reflecting on and researching student knowledge while promoting student learning. Students in this course will learn how to use research to examine, reflect on, and modify instruction to increase their knowledge and skills in teaching all students. Diversity and social justice are recurring themes for discussion and reflection. In addition, this course focuses on the development of the portfolio to meet the requirements for a comprehensive examination for the pedagogical portion of the program.

**CTGE 5357. Innovative Curriculum and Teaching Practices and Models. (3 Credits)**

Examines innovative curriculum models and teaching methods to improve the learning conditions for students; exemplary programs and practices are discussed, including interdisciplinary teaching, and teaming of students and faculty; implications are drawn for maximizing student learning.

**CTGE 5402. Teaching and Learning with Diverse Adolescents: Assessment and Planning. (3 Credits)**

This course focuses broadly on learning environments, learner development, collaboration, teaching and assessing, social justice, reflection, and continuous professional growth. This course provides initial preparation and practice in issues and strategies for teaching for social justice in classrooms with diverse students. The major areas of focus are classroom environments, adolescent development, assessment, and backward design. Candidates will reflect together on their clinical placements using standards of teaching and learning including the Danielson continuum and the Common Core State Standards. This course is connected to a three–five days/week internship that includes college-supervised student-teaching experience.

**CTGE 5411. Perspectives and Issues in Early Childhood Special Education. (3 Credits)**

This course provides an overview of the historical and legal perspectives of special education, early intervention, and early childhood special education services. It introduces various service delivery models employing an interdisciplinary approach. Controversial issues and trends in early intervention, early childhood, and early childhood special education are integrated to enable students to read and critically apply research and recommended practices.

**CTGE 5420. Educating Culturally and Linguistically Diverse Learners: Pre K-12. (3 Credits)**

In this course Teacher Candidates in Early Childhood, Childhood, and Adolescence Education explore the characteristics, strengths, and needs of students who are culturally diverse and are learning English as an additional language (EAL). It highlights research-based instructional approaches and strategies to promote culturally responsive learning, and oral and written development in EAL across all content areas. The emphasis is on creating an integrated learning environment that enhances culture, language, and content knowledge and builds the academic achievement for all learners.

**CTGE 5421. Planning Instruction for Young Children with Disabilities. (3 Credits)**

This course shall enable students to structure physical and social environments, and to develop and implement instructional and intervention plans and procedures that are developmentally appropriate and respectful of family, cultural, language, and social diversity.

**CTGE 5530. Adol Literacy English Lang. (3 Credits)**

This course will focus on "ways with words" and how to best promote language usage and literacy through our teaching. Topics explored will include linguistic dimensions/systems of language, relationships between spoken and written words, variations within and across languages, readings and writing processes, and of course, how to best incorporate this knowledge into practice as teachers of English language arts. Students will gain deeper understanding of the English language and systems of grammar.

**CTGE 5532. Dev Lit Intermediate Grades. (3 Credits)**

Students examine ways of organizing and implementing curriculum and instruction that foster literacy development in a range of students in grade 5-9. Students explore strategies for assessing and improving reading comprehension and writing fluency, develop strategies for motivating intermediate students to read and write, and discover methods for integrating electronic and other non-print texts into the curriculum for developing literacy.

**CTGE 5534. Beginning Reading and Writing in Inclusive Classrooms. (3 Credits)**

This course focuses on the development of linguistic and cognitive processes in emergent literacy and beginning reading and writing, as well as application in models for the instruction and assessment of reading and writing in young children. The course includes contemporary as well as historic approaches to the relationship between meaning-based literacy activities and word-level reading and spelling. It also includes material on classroom-based interventions for young children at risk of reading failure because of learning differences.

**CTGE 5540. Adolescent Literature in a Multicultural Society. (3 Credits)**

An exploration of the role of diverse adolescent literature from multiple genres across the disciplines as a vehicle for introducing students to themselves, their world, and the worlds of other cultures. Works will include those written by women and authors from a variety of cultures. Students will plan curricula that incorporate a variety of instructional strategies, integrating adolescent literature across curriculum areas in order to foster lifelong habits of reading, critical thinking, and judgment in adolescent readers.

**CTGE 5545. Rdg Diag: Sec Sch/Adults. (3 Credits)****CTGE 5547. Literacy and Learning Across the Curriculum. (3 Credits)**

In this course, students will learn about reading and writing as processes, language and literacy development, the use of literature and meaningful writing activities in content area curriculum, and the acquisition of comprehension, critical thinking and study skills needed for a variety of text types. Assessment of literacy proficiencies will be examined. The focus of this course is on middle and high school application.

**CTGE 5548. Literacy Across the Curriculum in Inclusive Classrooms. (3 Credits)**

This course has a threefold focus: an in-depth study of strategies for comprehending and creating text; integration of previous coursework in a comprehensive literature-based interdisciplinary theme unit; and an expectation that teachers or teacher candidates will teach, evaluate, and reflect upon this curriculum in their role as teacher-researchers. Topics include background knowledge, questions, and queries; reader response theory; cognitive and metacognitive strategies, interconnections between text structure in reading and text structure in writing; study and research strategies; and multiple print sources, including technology. The course promotes the individualization of curriculum for all children.

**CTGE 5549. Assessing and Developing Reading and Writing in Social Studies, Science, and Mathematics. (3 Credits)**

In this course, students will learn about reading and writing as processes; language and literacy development; and use of literature and meaningful reading-writing strategies in content-area curriculum; and the acquisition of comprehension, critical thinking, and study skills needed for a variety of text types. Assessment of literacy proficiencies will be examined. The focus of this course is on middle and high school application.

**CTGE 5551. Reflective Practice and Field Experience I in an Inclusive Childhood Classroom. (1 to 3 Credits)**

This course provides an introduction to schools and schooling practices. The Reflective Seminar is intended as a vehicle for critical reflection through which theory can be integrated with practical experiences. It focuses on several interconnected teaching strands: curriculum design, lesson planning, classroom organization, classroom management, assessment, reflective practice, collaboration and professionalism. Students in this seminar are viewed as reflective practitioners who draw from multiple models in planning for learning and teaching. This planning will build an inclusive community of learners, minimize behavior problems, and provide a welcoming, supportive environment for all children. The course meetings are designed to meet the varying needs of our students in either the traditional or alternative programs. The seminar also provides a structure for organizing workshops in child abuse prevention, drug and alcohol abuse prevention, and violence prevention. Field experiences progress from observation to guided practice with small and whole groups of students.

**CTGE 5552. Reflective Practice and Field Experience II in an Inclusive Childhood Classroom. (1 Credit)**

This course provides an introduction to schools and schooling practices. The Reflective Seminar is intended as a vehicle for critical reflection through which theory can be integrated with practical experiences. It focuses on several interconnected teaching strands: curriculum design, lesson planning, classroom organization, classroom management, assessment, reflective practice, collaboration and professionalism. Students in this seminar are viewed as reflective practitioners who draw from multiple models in planning for learning and teaching. This planning will build an inclusive community of learners, minimize behavior problems and provide a welcoming, supportive environment for all children. The course meetings are designed to meet the varying needs of our students in either the traditional or alternative programs.

**CTGE 5553. Reflective Practice and Student Teaching I in an Inclusive Childhood Classroom. (1 Credit)**

This course provides an introduction to schools and schooling practices. The reflective seminar is intended as a vehicle for critical reflection through which theory can be integrated with practical experiences. It focuses on several interconnected teaching strands: curriculum design, lesson planning, classroom organization, classroom management, assessment, reflective practice, collaboration, and professionalism. Students in this seminar are viewed as reflective practitioners who draw from multiple models of planning for learning and teaching. This planning will build an inclusive community of learners, minimize behavior problems, and provide a welcoming supportive environment for all children. The course meetings are designed to meet the varying needs of our students in either the traditional or alternative programs.

**CTGE 5554. Reflective Practice and Student Teaching II in an Inclusive Childhood Classroom. (1 Credit)**

This course provides an introduction to schools and schooling practices. The reflective seminar is intended as a vehicle for critical reflection through which theory can be integrated with practical experience. It focuses on several interconnected teaching strands: curriculum design, lesson planning, classroom organization, classroom management, assessment, reflective practice, collaboration and professionalism. Students in this seminar are viewed as reflective practitioners who draw from multiple models in planning for learning and teaching. This planning will build an inclusive community of learners, minimize behavior problems, and provide a welcoming, supportive environment for all children. The course meetings are designed to meet varying needs of our students in either the traditional or alternative programs.

**CTGE 5631. Science Curriculum and Instruction. (1 to 3 Credits)**

Principles of curriculum construction applied to development of science sequences for children of various ages and ability levels, to assist teachers to understand and present basic concepts of science, and to utilize the environment in science teaching.

**CTGE 5634. Community Based Resources for Science. (3 Credits)**

This course explores the resources of urban communities for teaching science at elementary and intermediate school levels. Field trips will include visits to urban centers for the study of astronomy, biology, and applied physics.

**CTGE 5791. Social Studies Curriculum. (3 Credits)**

This course is designed to provide students with the research data, trends, and processes connected with developing an effective social studies curriculum. This course will have both a theoretical and practical focus, which will prepare students for all the steps needed to develop a curriculum—from framing goals and objectives to implementing the curriculum in middle and high school settings.

**CTGE 5795. Clinical Seminar in Adolescence Social Studies. (3 Credits)**

This course is designed to develop skills and habits of mind that are requisites to reflective practitioners of teaching. Course participants will engage in reflective discourse with peers and mentors to engage in a process of continuous learning in professional practice. The focus of the discussions, assignments, and mentoring/instructional activities will be on developing pedagogical content knowledge and skills needed to positively impact the life and learning of all students.

**CTGE 5834. Clinical Seminar in Adolescence Language Arts Education. (3 Credits)**

This course is designed to develop skills and habits of mind that are requisite to reflective practitioners of teaching. Course participants will engage in reflective discourse with peers and mentors to engage in a process of continuous learning in professional practice. The focus of the discussions, assignments, and mentoring/instructional activities will be on developing pedagogical content knowledge and skills needed to positively impact the life and learning of all students.

**CTGE 5835. Lang Arts/Tchg of Rdg. (3 Credits)****CTGE 5838. Integrated Instruction in Adolescent English Language Arts. (3 Credits)**

This course will develop the knowledge, abilities, attitudes, and pedagogical approaches necessary for teaching English language arts to diverse secondary-level students. Emphasis is on selecting and designing instructional strategies, materials, and assessment tools for meeting the needs of all students in inclusive multicultural classes, and helping them meet the learning standards for English language arts.

**CTGE 5840. Second Language Acquisition. (3 Credits)**

L2 Acquisition & Assess. Overview of the nature of second language acquisition processes with emphasis on teaching and learning. Areas addressed include: second-language acquisition, sociolinguistic and psycholinguistic factors in learning a second language, secondlanguage proficiency, characteristics of L2 learners, ESL programs, instructional approaches and instructional resources for teachers. Second Language Acquisition (SEC LANG ACQ) title changed September 13, 2011, and again DECEMBER 3, 2012 to SECOND LANGUAGE ACQUISIT.

**CTGE 5841. Principles of Bilingual Education. (3 Credits)**

Topics include an examination of local, national, and international types of bilingual curricular models and practices; sociolinguistic and psycholinguistic aspects of bilingualism; and approaches to concept development in bilingual students. Graduate students will examine the history of bilingual education in the US, the evolution of different ideologies about language, and their impact on language policies in schools will be conducted.

**CTGE 5842. Second Language Acquisition and Assessment. (3 Credits)**

Overview of the nature of second language acquisition processes with emphasis on teaching, learning, and assessment. Areas addressed include second language acquisition, sociolinguistic and psycholinguistic factors in learning a second language, second language proficiency and development, and assessment of language competence and performance. In addition, the course will survey characteristics of emergent bilingual students, ESL programs, and instructional approaches and resources.

**CTGE 5845. Learning Content Through Language in Multilingual Classrooms. (3 Credits)**

This course provides an overview of English language instruction and development across the content areas when working with students who acquire English as an additional language. Particular attention will be given to investigating language demands of academic text; exploring instructional methods and instructional strategies to teach the language of academic text; and designing instruction guided by language standards as well as content standards of social studies, science, and mathematics in culturally and linguistically diverse classrooms.

**CTGE 5846. Teaching English Oracy and Literacy to Speakers of Other Languages. (3 Credits)**

This course provides an overview of the main theories and research related to the development of oracy and literacy when teaching students for whom English is an additional language. The learning processes of oracy and literacy as well as research-based instructional practices Pre-K to 12th grades will be examined. Attention will be given to the interconnection of these processes, similarities and differences between oral and written discourses, and the influence of the home language on developing oracy and literacy in English as an additional language. In addition, a survey of children and adolescent multicultural literature and its role in developing oracy and literacy will be conducted.

**CTGE 5847. Practicum in Teaching English to Speakers of Other Languages. (3 Credits)**

Supervised teaching practice of a minimum of 180 hours in English as a Second Language classrooms. Bi-weekly seminars.

**CTGE 5848. TESOL Student Teaching I. (0 Credits)**

This course will be an initial semester of supervised student teaching in English as a Second Language in an accredited elementary, junior high or high school, including large-class and small-group teaching as well as observations. The seminar will also focus on effective teaching practices.

**CTGE 5849. Designing Culturally and Technologically Relevant Instruction. (3 Credits)**

This course provides an overview of designing instruction which integrates cultural, academic, and linguistic funds of knowledge that reside in families of culturally and linguistically diverse students and the neighborhoods and communities where schools are located. In addition, an examination of how instruction is enhanced through technological resources that connect learning in individual classrooms to the outside world will be conducted. Emphasis will be given to exploring socio-historical, -cultural, and -political influences on learning and teaching, as well as, enhancing education by bridging the gap between schools, families, neighborhoods, and communities.

**CTGE 5850. Observing and Documenting Children's Learning: Reflective and Effective Early Childhood Practices. (3 Credits)**

This course will introduce major child-development and learning theories, and different assessment tools for observing and documenting child development and learning. Implications for programming and instruction for young children will be discussed.

**CTGE 5851. Bilingual Instruction Across Subject Areas. (3 Credits)**

This course is designed to provide an understanding of different pedagogical methods to develop bilingualism across subject areas. Additional attention is given to content curriculum and standards, negotiating academic content in more than one language and instructional strategies to scaffold academic language and text bilingually. The exploration of making cross-disciplinary and cross-linguistic connections in teaching and learning is required.

**CTGE 5852. Multilingual Oracy and Literacy. (3 Credits)**

This course explores the developmental processes of oracy and literacy in more than one language. Particular attention will be given to differentiating between oral language and oracy, reading and literacy, and monolingual and bilingual oracy and literacy development. The course integrates the study of metalinguistic strategies to support oracy and literacy development across languages and academic text. Graduate students conduct a survey of authentic and translated bilingual literature as well as the use of technology in bilingual classrooms.

**CTGE 5853. Practicum in Bilingual/Second-Language Classrooms. (3 Credits)**

Application and evaluation of teaching approaches, methods, and techniques in bilingual/second-language classrooms. This course also includes supervised student teaching of a minimum of 180 hours and clinical analysis by students and support personnel.

**CTGE 5855. English as a Second Language for Adults. (3 Credits)**

This course focuses on the specific needs educators encounter as they prepare to teach adults who acquire English as an additional language. Principles of adult learning theory will be integrated with principles of ESL to provide students an opportunity to explore and reflect on theory meeting practice in this specific curriculum area.

**CTGE 5858. TESOL Student Teaching II. (3 Credits)**

Teacher candidates are required to complete a second semester of supervised student teaching in English as an additional or new language (EAL/ENL) in an accredited elementary, junior high, or high school under the guidance of a certified ESL teacher. This clinical experience will include making reflective observations, designing lessons and mini units, and teaching individual-, small-group, and whole-group lessons. Students are required to provide an in-depth analysis of the performance of EAL/ENL students. In addition, attendance and meaningful participation in a seminar of effective teaching practices is required.



**CTGE 5910. Computers and Technology for Educators. (1 to 3 Credits)**

This course is designed to help educators explore how to use present and emerging technologies in their classrooms and for their professional and personal development. There are four major emphases in the course: personal computer skills development, computers as aids in record management and research, advanced computer applications, and other technologies available for teaching and learning. No prerequisites or prior experience with computers is necessary.

**CTGE 5920. Adult Development and Adult Learning Theory. (3 Credits)**

Provides an understanding of theories and research in adult learning and development. Explores the dynamic relationship between the domains of adult learning and development, as well as implications for the practice of adult education.

**CTGE 6000. Developing Emerging Literacy. (3 Credits)**

This course addresses emerging literacy in children from birth to age eight, with emphasis on the preschool and kindergarten years. It focuses on theoretical underpinnings and development of language, concepts about print, book knowledge, and early drawing and writing. Effective instructional and assessment strategies appropriate for diverse early childhood classrooms are emphasized. Children's play as a vehicle for literacy development, as well as family literacy, is also included.

**CTGE 6001. Innovative Educators. (3 Credits)**

In this course, students explore theory and research regarding the parameters for innovating curriculum and instruction in learning environments. Doctoral candidates will explore a variety of conceptualizations of innovation, the role of interdisciplinary collaboration in innovating instruction and curriculum, and ways innovation can serve to address educational inequities. Different cases that illustrate innovative learning environments across different countries and fields will serve to guide in-depth discussions. By synthesizing contemporary research, doctoral candidates will explore emerging innovations in education and construct their own understanding of being innovative educators.

**CTGE 6002. Beginning Literacy Development in Inclusive Classrooms. (3 Credits)**

Theory- and research-based beginning reading and writing strategies for classroom teachers, K–3. The focus is on understanding the underlying processes that support strategies for young children in transition from spoken to written language, the development of phonemic awareness and invented spelling, the relationship between writing and reading, phonics, and the use of multiple cue systems in early decoding and strategies for the construction of meaning. The course will also include theory and research of special programs for young children with learning differences.

**CTGE 6004. Instructional Practices for Writing Across the K-6 Curriculum. (3 Credits)**

This course will provide teachers of literacy the opportunity to explore writing as a process and to develop instructional practices that may lead to growth in all students' writing abilities across the childhood curriculum. In addition, students will have the opportunity to evaluate existing writing programs and to propose revisions to the programs to make them more effective.

**CTGE 6006. Instructional Practices for Writing Across the 5-12 Curriculum. (3 Credits)**

This course will provide teachers of adolescents the opportunity to explore writing as a process and to develop instructional practices that may lead to growth in all students' writing abilities across the curriculum in grades 5 through 12. In addition, students will have the opportunity to evaluate existing writing programs and to propose revisions to the programs to make them more effective.

**CTGE 6008. Critical Literacy, Inquiry, and Literature for Children. (3 Credits)**

Explores how literacy can be used in the classroom as a vehicle for the critical examination of various issues and topics. Examines the use of the disciplines—literatures, sciences, and social sciences—to provide the contents for the inquiry and the communication systems—language, art, music, mathematics, and movement—to provide the processes through which the content is encountered.

**CTGE 6010. Critical Literacy, Inquiry, and Literature for Adolescents. (3 Credits)**

This course explores how inquiry and literature can be used in the classroom as a vehicle for the critical examination of various issues and topics with adolescents.

**CTGE 6012. Assessment and Development of Literacy Processes: Birth-Grade 6: Practicum I. (3 Credits)**

Literacy educators adopt reflective teacher-researcher stances as they informally document and assess individual students' reading and writing achievements while implementing instructional activities to promote literacy development in authentic settings for children from birth to grade 6. They design or select appropriate procedures for documenting, promoting, and evaluating learners' strategies and proficiencies. Includes 25 hours of supervised practicum experience on site. CTGE 6012 is open only to matriculated students who have completed a minimum of nine credits in the program. Completion of CTGE 6012 requires satisfying Gateway assignments, explained in the program handbook.

**CTGE 6014. Assessment and Development of Literacy Processes: Grades 5-12, Practicum I. (3 Credits)**

Literacy educators adopt reflective teacher-researcher stances as they informally document and assess individual students' reading and writing achievements while implementing instructional activities to promote literacy development in authentic settings for students in grades 5-12. They design or select appropriate procedures for documenting, promoting, and evaluating learners' strategies and proficiencies. Includes 25 hours of supervised practicum experience on-site. CTGE 6014 is open only to matriculated students who have completed a minimum of nine credits in the program. Completion of CTGE 6014 requires satisfying Gateway assignments, explained in the program handbook.

**CTGE 6016. Research and Practice for Struggling Readers and Writers: Grades 1-6, Practicum II. (3 Credits)**

Systematic documentation and analysis of literacy behaviors and literacy development of struggling readers and writers. Students adopt a reflective teacher-researcher stance as they implement and evaluate instructional activities intended to promote literacy growth. Includes 25 hours of supervised practicum experience on site. This course typically follows completion of CTGE 6012.

**CTGE 6018. Research and Practice for Struggling Adolescent Readers and Writers: Grades 5-12, Practicum II. (3 Credits)**

Systematic documentation and analysis of literacy behaviors and literacy development of struggling readers and writers. Students adopt a reflective teacher-researcher stance as they implement and evaluate instructional activities intended to promote literacy growth. Includes 25 hours of supervised practicum experience on site. This course typically follows the completion of CTGE 6014. Completion of CTGE 6018 requires satisfying Gateway assignments, explained in the program handbook.

**CTGE 6191. Critique of Research. (3 Credits)**

Examination of the principles for the design of educational research. Students will be trained to subject educational research to intensive analysis, defining all possible sources of variation.

**CTGE 6192. Research in the Teaching Process. (3 Credits)**

Candidates learn how to conduct research in classrooms through designing and implementing a research project. Topics include understanding the nature of classroom interactions and the learning process, the effects of specific techniques on learning, and the influence of the classroom environment on learning.

**CTGE 6195. Theory and Practice in Curriculum and Teaching. (3 Credits)**

A critical review of conflicting curriculum theories advanced and implemented in contemporary education. Steps in developing and implementing curriculum theory will be analyzed, and the role of theory in curriculum development will be emphasized from varying perspectives.

**CTGE 6201. Teaching through Digital Literacies. (3 Credits)**

This course explores various aspects of digital literacies, including the use of multimedia technologies in teaching and learning. Discussion of and practice with technologies is in service of defining digital skills that students must develop to succeed in school and beyond.

**CTGE 6253. STEAM Education in Theory and Practice. (3 Credits)**

This course is designed to provide students with a comprehensive introduction to STEAM (Science, Technology, Engineering, the Arts, and Math) education. Doctoral students will learn about the evolution of STEAM education as well as the theories and methodologies that led to its emergence. Discussions of readings will highlight how STEAM interconnects different fields of knowledge and is relevant to the instruction of all learners across a continuum of abilities and talents. Throughout the course, students will critically analyze the current research, trends, and practices of STEAM in contemporary K-12 classrooms.

**CTGE 6255. Teaching and Assessing Science, Technology, Engineering, Art & Mathematics (STEAM) in K12. (3 Credits)**

This course is designed to conduct a deep cognitive and experiential examination of the Science/Technology/Engineering/Arts/Mathematics Education (STEAM) pedagogy in K-12 education. Consequently, this course seeks to use a conceptual-change approach for developing habits of mind and epistemological orientations requisite to curriculum designers and leaders of STEAM education programs and initiatives.

**CTGE 6257. Computational Thinking A: Principles of Computing. (3 Credits)**

This course covers various computing aspects of computational thinking. It includes history and future as well as applications of computing. Topics in the following areas will be covered: basic concepts, abstraction, algorithmic problem-solving, recursion, modeling, and simulation, visualization, and limitation. Each topic will be supplemented with a real-world example, case study, and practical work related to education in K-16 classrooms.

**CTGE 6258. Computational Thinking B: Essentials of Informatics. (3 Credits)**

This course covers various data analytics and informatics aspects of computational thinking. It focuses on the nature of informatics, the need for it, and its applications, particularly in education. It will emphasize the computational approach as a necessary complement to the statistical approach. Topics in the following areas will be covered: data representation, data description with regression, correlation and causality, classification, associate rule, clustering, machine learning, data fusion, cognition, and visualization. Each topic is supplemented with a real-world example, case study, and practical work related to educational settings.

**CTGE 6260. Media Tchn Math Science. (3 Credits)**

Students will be introduced to multimedia technologies and their use in science and mathematics education. The goals for the course include an understanding of multimedia technologies as tools for teachers (not replacements, not baby sitters). The most effective tools build cognitive theory into their design. Tools that incorporate cognitive theory are said to represent cognitive technologies. A second goal is to empower the student to evaluate educational software along multiple dimensions. An additional goal involves familiarization with modern graphic-user interfaces with a direct-manipulation style of interaction.

**CTGE 6261. Media Literacy Technology. (3 Credits)**

The course will cover the uses of the computer and other technology in language arts and social studies at the elementary and secondary levels. Among the topics covered will be text processing, computerized tutorials, and computerized simulations. Students will review a range of technology-based instructional activities, as well as create technology-based materials.

**CTGE 6262. Application of Computers to Special Education. (3 Credits)**

Designed for teachers concerned with the educational needs of students with disabilities. Introduces computer software that is available for use by the teacher of students with the full range of disabilities and other health impairments. Experience using the Internet to access information, lesson plans, and resources helpful to the special education teacher.

**CTGE 6265. Emerging Issues in Technology. (3 Credits)**

This course is designed to help educators better understand how emerging issues in educational technologies influence their professional environment and pedagogical options. The course will focus on the educational transformations sometimes facilitated by electronic technology use and adoption. Going beyond learning particular techniques for integrating technology into the curriculum, this course takes a wider institutional view of the transformative potential of new technologies in education.

**CTGE 6270. Data, Inquiry & Tech. (1 to 3 Credits)**

This course for educators is designed to promote deep understanding or 1) the design of school based inquiry teams, and 2) the links between inquiry, student learning outcomes and technology.

**CTGE 6290. Cross-Cultural and Educational Perspectives of Learning Communities. (3 Credits)**

This course provides graduate students with an opportunity to observe, examine, document, and prepare a reflective document under cross-cultural and educational perspectives and characteristics of communities of learning (i.e. schools, educational systems, educational districts outside U.S.). Students will examine components of its culture, language, and identity and its impact on their educational system. Students will gain a deeper understanding of themselves and others as they explore how cultural values, norms, and practices influence how people think about educational systems in different parts of the world. Since the course is offered abroad, students will experience firsthand the complexities of immersion in another language and culture while developing their own intercultural competence. Topics include: (1) cultural norms and values; cultural lifestyles and their relationships to society value system educational goals and implementation; (2) intercultural competence; (3) cross-cultural communication in and beyond the classroom, including the role of race/ethnicity, social class, and gender; (4) cultural perspectives on school-community relations; and (5) cross-cultural perspectives on parenting and language socialization.

**CTGE 6300. Curriculum Evaluation. (3 Credits)**

Examination of evaluation strategies, techniques, and models applicable to the school curriculum. Study of the application of objectives to evaluation, development of evaluation designs, systematic approaches to assessment, problems of implementation, and accountability.

**CTGE 6305. Dev Delays / Early Interv. (3 Credits)**

Provides an overview of the characteristics of disabling conditions in young children. It introduces the psychological, environmental and biological conditions, and the interactions among them that place children at risk for developmental delays and disabilities.

**Mutually Exclusive:** CTGE 5155, PSGE 5301.

**CTGE 6310. Educating Students with Disabilities in Elementary Schools. (3 Credits)**

This course provides an introduction to understanding children with disabilities and special health care needs. It examines the physical, social, emotional, and learning characteristics of children identified as disabled and their impact on the family. It meets New York State Education Department regulatory requirements for teachers of students with disabilities to understand the needs of students with autism.

**CTGE 6320. Col/Consult w/Fam & Prof. (3 Credits)**

Primary focus of this course is to understand roles that families, professionals, and communities play in the lives and education of children from various backgrounds.

**Mutually Exclusive:** CTGE 5234.

**CTGE 6326. Perspectives on Standardized Language and Literacy Assessment: Policy and Practice. (3 Credits)**

Focuses on issues, principles, and current practices in literacy assessment, examination of available measures and evaluation procedures of norm-referenced, language and literacy assessment, relationship of standardized assessment to instruction, and examination of strengths and weaknesses of such instruments.

**CTGE 6340. Interventions Read / Write. (3 Credits)**

Draws on the fields of literacy, learning disabilities, psychology, and neuroscience to examine ways to assess the reading and writing skills of students who struggle and to determine evidence based interventions that support their learning. MG, Chair, C&T, October 16, 2014.

**CTGE 6350. Positive Behavior Support. (3 Credits)**

This course focuses on obtaining the knowledge and skills necessary to develop, implement, and evaluate the impact of positive behavior support on student behavior.

**CTGE 6400. Language for School Learning: Implications for Reading and Writing Programs. (3 Credits)**

An interdisciplinary course focusing on the relationship for teachers and supervisors between language as a tool for learning and language as evidence of learning. Particular emphasis will be placed on the relationship between these concerns and the need for improving the reading and writing abilities of students in all levels of education.

**CTGE 6401. Teaching the Structure of the English Language. (3 Credits)**

An introduction to theories of English language phonology, syntax, and semantics and their implications for developing English language understanding, speaking, reading, and writing skills by speakers of other languages. Particular emphasis will be placed on the development of related teaching and learning approaches.

**CTGE 6410. Teaching and Assessing Reading and Literature Adolescents. (3 Credits)**

In this course, students examine ways of assessing, organizing and implementing standards-based curriculum and instruction that foster reading development and literary understanding for adolescents within the full range of abilities. The course provides opportunities to explore formal and informal strategies for assessing and improving reading comprehension and fluency, to develop strategies for motivating adolescents to read a wide range of literatures, and to plan differentiated instruction for reading and the study of literature to promote learning for all students.

**CTGE 6500. Interdisciplinary Perspectives on Literacy; Linguistic and Cognitive Development. (3 Credits)**

The course focuses on literacy as the interrelationship between and among linguistic dimensions (systems of language, spoken-written language, development connections, language variation) and cognitive dimensions (development, teaching, learning, understanding, and interpretations). Addresses competing theories of literacy, language, and learning, and the potential implications for decision-making by literacy leaders.

**CTGE 6501. Sociocultural and Developmental Dimensions of Literacy. (3 Credits)**

Focuses on the sociocultural of literacy - group uses of literacy, literacy as a tool for knowledge and power - and the developmental dimensions - patterns of learning literacy, role of learner, adult and environment - and their interrelationships.

**CTGE 6502. English as a World Language. (3 Credits)**

This course explores English instruction and use around the world. Course readings will survey varieties of global Englishes. The purpose of speaking and writing English, by native and non-native speakers, and how these purposes influence teaching and learning are examined. Discussions are held on the international spectrum of English teaching approaches and local conditions that may influence their implementation. Graduate students analyze the impact of English instruction and its use around the world guided by socio-historical, socio-cultural, and socio-political lenses.

**CTGE 6504. Teaching and Assessment of Composition for Adolescents. (3 Credits)**

This course focuses on the teaching of writing in middle and high school English classes. Topics covered will include theories of writing and writing instruction, assessment of writing, and instructional practices in the teaching of composition.

**CTGE 6532. Developing Literacy in Intermediate Grades. (3 Credits)**

In this course, students examine ways of organizing and implementing curriculum and instruction that foster literacy development in a range of students in the intermediate grades (grades 5-9). Students explore strategies for assessing and improving reading comprehension and writing fluency, develop strategies for motivating intermediate grade students to read and write, and discover methods for integrating electronic and other non-print texts into the curriculum as a means for developing literacy.

**CTGE 6551. Reflective Seminar in Literacy Education. (3 Credits)**

As a culminating experience in the Language and Literacy program, students engage in weekly seminar sessions reflecting on evolving personal, professional philosophies and proficiencies. Students will explore approaches to evaluating, organizing and enhancing literacy programs. Teacher research and practice as a literacy leader will result in the creation and presentation of a professional portfolio to a professional panel for evaluation and approval. The portfolio should contain evidence that the student has met each of the program objectives.

**CTGE 6593. Administration and Supervision of Literacy and Language Programs. (3 Credits)**

The course deals with organization, administration, and problems of organizing a reading program. Attention is also focused on in-service teacher education.

**CTGE 6608. Literacy Institute. (0 to 3 Credits)**

Important and emerging topics in literacy education; theories, current research and best practice applications for developing literacy proficiencies K-12.

**CTGE 6662. Teaching Geometric Concepts. (3 Credits)****CTGE 6781. Instructing Bilingual Special Education Students. (3 Credits)**

The course presents a general overview of multiple perspectives in teaching the bilingual/limited English proficient students with special needs: instructional models, individualized instruction, the role of English in teaching, literacy development in both languages, and content-area teaching.

**CTGE 6782. Bil Spec Ed: Issues&Trend. (3 Credits)****CTGE 6810. Sociopolitical Dimensions of Education. (3 Credits)**

This course introduces students to various pedagogical theories and leads to an understanding of how these theories relate to schooling in the 21st century. Several questions will guide the course: What are the relationships among power, knowledge, and social identities in the making of “teachers” and “students”? How is power—particularly in the form of class, race, gender, and other social stratifications—enacted, contested, and perpetuated in school contexts? Who is privileged? Who is disadvantaged?.

**CTGE 6991. Internship in Curriculum and Teaching. (3 Credits)**

Offered as a Guided Tutorial Course. Professional experiences in the schools or educational agencies other than schools, as interns to curriculum coordinators, supervisors, or consultants. Registration with approval of chairperson, faculty supervisor, and agency director.

**CTGE 6992. Internship in Curriculum and Teaching. (3 Credits)**

A continuation of CTGE 6991: Offered as a Guided Tutorial Course. Professional experiences in the schools or educational agencies other than schools, as interns to curriculum coordinators, supervisors, or consultants. Registration with approval of chairperson, faculty supervisor, and agency director.

**CTGE 7000. Special Topics Lang Lit Lrng. (3 Credits)****CTGE 7190. Statistics and Quantification Design. (3 Credits)**

Statistical methods applied to curriculum research studies. Strategies for evaluating educational intervention, balancing internal and external validity, obtaining appropriate population samples and implementing multivariate designs.

**CTGE 7194. Advanced Qualitative Research. (3 Credits)**

In this course, students will examine the nature and characteristics of various qualitative inquiry traditions utilized in educational research. Emphasis will be placed on developing competence in qualitative research design, data collection, analysis, and report writing.

**CTGE 7201. Contemporary Thinking about Instruction. (3 Credits)**

In this course, students will examine different theories of learning to question those theories' influence on instructional practice. Candidates will examine historical epistemological frameworks that influence instruction, including theories of motivation and engagement used in designing powerful learning experiences, as well as cognitivism, humanism, behaviorism, social cognitivism, and constructivism. In addition, candidates will examine contemporary theories that question social, cultural, and contextual conditions influencing instruction and impacting educational equity, such as sociocultural, critical pedagogy, race theory, and situational theories. Candidates will examine their theories of practice to consider how they approach problems in their professional practice.

**CTGE 7204. Informing and Transforming Instruction through Assessment. (3 Credits)**

This course will focus on practices and policies related to the use of a variety of assessment approaches for informing instruction to understand and support student learning. Traditional and innovative assessment systems used with students with and without disabilities for progress monitoring, accountability, data-based decision-making at individual, school, and state levels will be explored. The course will further explore the roles of teachers, administrators, and policymakers in developing equitable and meaningful assessment approaches to improve learning environments for all students.

**CTGE 7210. Higher Education: Teaching, Grant Writing, and Conference Presentations. (3 Credits)**

This course will introduce students to essential components of higher education. Doctoral candidates will acquire knowledge and skills to become effective instructors, grant writers, and conference presenters. The course is designed to help them learn about higher education instructional presentations, sources of funding, writing tips, and pilot grant project proposals, and prepare and present articles at conferences.

**CTGE 7236. Problems and Issues in Early Childhood Education. (3 Credits)**

Examination of the concerns that affect practice and the child's ability to learn. Selection of topics current to working with all young children in early childhood settings.

**CTGE 7330. Res Sem: Secondary Educ. (3 Credits)****CTGE 7340. Contemporary Academic Interventions for All Learners. (3 Credits)**

It is estimated that more than 10 million children in the United States have some degree of reading disability. Roughly 80 percent of children referred for special services require support services in reading, writing, and oral language. Best contemporary practices rely on interdisciplinary teams to assess difficulties and plan interventions. This interdisciplinary course draws from the fields of literacy, learning disabilities, psychology, and neuroscience in examining theories and research in reading and writing processes and best practices for universal design. This course will explore recent advances in 1) the cognitive neuroscience of learning and individual differences, and (2) the universal design of educational technologies and multimedia of these fields, through appropriate readings and through media construction exercises designed to prepare and support participants to meet the challenge of individual differences through academic interventions.



**CTGE 7350. Creating Learning Environments through Positive Behavior Supports. (3 Credits)**

This course focuses on obtaining the knowledge and skills necessary to develop, implement, and evaluate the impact of Positive Behavior Support on student behavior. The course specifically covers general classroom management, Functional Behavior Assessment (FBA), and Positive Behavior Support (PBS) within the Response to Intervention (RtI). These are foundations of an appropriate behavioral intervention in supporting ALL students in classrooms and schools at large. The students will participate in lecture, discussions, article review, in-class activities, and conducting and presenting a case study.

**CTGE 7352. Research Design, Implementation, and Dissemination. (3 Credits)**

This course is designed to help students conduct a pilot study. The steps of research design are tailored to answer research questions candidates want to explore through a pilot study that they will conduct in the Research Apprenticeship. ICI faculty will mentor Ph.D. candidates in conducting the pilot study, writing a manuscript to disseminate the results and findings, and submitting the manuscript for publication in a scholarly journal. The course will be completed over a semester of the research apprenticeship.

**CTGE 7460. Advanced Seminar in Special Education Curriculum. (3 Credits)**

Focus on providing an appropriate curriculum for children, adolescents, and young adults with disabilities. Examination of curriculum evaluation strategies, techniques, and models applicable to both inclusive and special education classrooms. Students address issues of implementation and accountability. Students will apply this information in analyzing their own recent experiences in the classroom.

**CTGE 7470. Seminar in Language Disorders in Special Education. (3 Credits)**

Critical evaluation of major concerns in selected areas related to language development and remediation in the education of children, adolescents, and young adults with disabilities.

**CTGE 7491. Reading and Writing as Psycholinguistic Processes. (3 Credits)**

This course examines theories and research on reading and writing processes as these influence and result from cognitive activities. Implications for classroom use of reading and writing as activities for increasing learning.

**CTGE 7492. Translingual Pedagogy. (3 Credits)**

This course explores translingualism as a construct of multilingual competence. It refers to the multiple ways speakers of more than one language move across languages and communicate in hybrid languages within the context of migration, transnational economic and cultural relations, digital communication, and globalism. In this course, candidates will review research that explores sound pedagogical applications of this construct.

**CTGE 7493. Learning and Knowing through Multilingualism. (3 Credits)**

This course provides theoretical and research knowledge about the nature of learning and knowing in the 21st century. It explores how curricula are facilitated through language. Students will consider the dynamic relationship between knowledge construction and multilingualism. In addition, they will critically consider historical and contemporary approaches that promote learning academic content, from both linguistic separatist and integrative lenses.

**CTGE 7494. Translingual and Transliteracy Practice in Maker Spaces. (3 Credits)**

This graduate course seeks to develop new understandings about teaching language and literacy to diverse learners in a collaborative and interdisciplinary environment. Candidates will explore integrated instructional practices that support multilingual and transliteracy learning as well as deepen their understanding of professional mutual development. Key issues about the instruction of language and literacy will be identified and analyzed critically. Instructional projects that combine multilingualism and transliteracy to address these issues will be designed in small interdisciplinary groups and implemented in a makerspace classroom.

**CTGE 7497. Translingual and Transliteracy Practice in Makerspace. (3 Credits)**

This graduate course seeks to develop new understandings about teaching language and literacy to diverse learners in a collaborative and interdisciplinary environment. Candidates will explore integrated instructional practices that support multilingual and transliteracy learning as well as deepen their understanding of professional mutual development. Key issues about the instruction of language and literacy will be identified and analyzed critically. Instructional projects that combine multilingualism and transliteracy to address these issues will be designed in small interdisciplinary groups and implemented in a makerspace classroom.

**CTGE 7568. Advanced Practicum in Special Education. (3 Credits)**

Practicum experiences for advanced students, designed to prepare for supervisory roles and for curriculum development specialists; emphasis on the analysis of clinical teaching in a variety of classroom settings.

**CTGE 7570. Advanced Study on Problems and Issues in Special Education. (3 Credits)**

Focus on current problems and issues in special education related to the development and education of children, adolescents, and young adults with physical, cognitive, and/or emotional disabilities. Emphasis will be focused on communication and language disorders, and literacy development of children with disabilities. Exploration of trends in providing educational services to students with disabilities; application of this information in analyzing our recent experiences in schools.

**CTGE 7571. Research Issues and Policy Trends in Special Education. (3 Credits)**

Focus on the design and conduct of research in special education. Critique recent research tools and techniques in the field and relate these to current needs for more informative research results in special education. Read examples of research that employ different types of research methodologies. Students will be encouraged to apply these concepts in their own classrooms and schools as a basis for their own field-based research.

**CTGE 7574. Critical Transliteracy. (3 Credits)**

Central to this course is the exploration of the social, cultural, political, historical, and economic influences on diverse contexts where literacy is concerned. Literacy instruction is explored in K-12 schools and college, as well as in community organizations. Candidates will design explorations that critically examine how issues of power and diversity impact the democratization of the literacy classroom. Critical analysis of the multiple modes of literacy will be discussed as an instructional tool and as a vehicle to voice learners' knowledge in diverse learning environments.

**CTGE 7596. Cognitive, Linguistic, and Sociocultural Dimensions of Literacy. (3 Credits)**

History and impact of the cognitive revolution on language and literacy curricula, theories, and research. Overview of historical theories and research on text processing as problem solving (e.g., reader response theory, metacognitive theory, schema theory, information processing theory). Recent neurobiological studies are considered as methods of observing literacy problem solving. Implications for curriculum and teaching. Includes possible links to the development of student research agendas.

**CTGE 7599. Creativity in Teaching Environments. (3 Credits)**

This course reviews theory, research, and practice concerning instructional design and experience, with the goal of developing learners' creative problem-solving skills along with discipline content. Discussions will describe principles and practices applied to pre-K-16, and demonstrations of instructional resources will be provided. Candidates will explore ways to apply critical and creative thinking to facilitating learning for all in contested educational environments.

**CTGE 7820. Global Perspectives in Multilingual Competency. (3 Credits)**

This course provides theoretical and research exploration of global conceptualizations for communicating and learning in more than one language.

**CTGE 7843. Scnd Lang Proficncy/Lrng. (3 Credits)**

Survey of research on how students from diverse backgrounds acquire a second language; psycho-linguistic and sociolinguistic variables involved in curriculum; appraisal of techniques and instruments employed in such research; development of research models. Permission of chairperson or instructor required.

**CTGE 7844. Lang/Ed Asmt Mlt Lang St. (3 Credits)**

Focuses on theoretical problems in bilingual and second-language studies; examination of available measures and evaluation approaches, for example, language dominance and proficiency instruments; criterion-referenced tests; and construction and application of new techniques and measures for such programs.

**CTGE 7845. Curriculum Models: Bilingual/ESL Programs. (3 Credits)**

The course provides theoretical and practical knowledge related to planning, development, and implementation of curriculum models and methods in bilingual and English as a second language program. The course focuses on (1) curriculum models and design typologies, (2) analysis of policy issues, (3) language and cultural issues, and (4) second language methods.

**CTGE 8001. Research Apprenticeship. (0 Credits)**

In the Research Apprenticeship the student is required to work closely with a research apprenticeship faculty advisor to develop and carry out a research project. The student must register each of the 3 semesters and must attend the Research Colloquia each semester. Prerequisite: Permanent Matriculation staty plus 21 doctoral credits.

**CTGE 8101. Advanced Research in Curriculum and Teaching. (3 Credits)**

Designed for advanced doctoral students who are developing dissertation topic areas or who are conducting research projects. The course is usually taken on an independent study basis because of unique student needs.

**CTGE 8110. Dissertation Seminar in Curriculum & Teaching. (3 Credits)**

Seminar for advanced doctoral candidates who have completed all coursework for their degree. The purpose of the seminar is to have students develop an approved proposal for their doctoral dissertation.

**CTGE 8111. Dissertation Seminar in Curriculum & Teaching. (3 Credits)**

A continuation of CTGE 8110: Seminar for advanced doctoral candidates who have completed all coursework for their degree. The purpose of the seminar is to have students develop an approved proposal for their doctoral dissertation.

**CTGE 8502. Directed Research in Curriculum and Teaching. (3 Credits)**

Designed for students who have completed their coursework and are developing research problems or projects for completion of doctoral studies. It may not be used to replace any degree course requirements.

**CTGE 9000. Special Topics in Curriculum and Teaching. (3 Credits)**

Special topics in curriculum and teaching. (Permission of course instructor required.)

**CTGE 9001. Spec Topics C & T. (0 Credits)**

Spec Topics C & T.

**CTGE 9002. Spec Topics C & T. (0 to 3 Credits)**

Spec Topics C & T.

**CTGE 9990. Independent Study. (0 to 3 Credits)**

Designed to enable students to study selected topics in depth and to conduct research. For matriculated students only. An outline of the proposed work must be approved by the adviser. Registration requires the approval of professor directing study, the division chairperson and the director of graduate studies.