

ED.610 (INTERDISCIPLINARY STUDIES IN EDUCATION)

ED.610.610. Foundation to Innovation: Adult Learning. 3 Credits.

Participants will study the history, philosophy, and theory of adult learning, as well as the breadth of the field as they construct their personal philosophies of adult learning for their portfolios. Participants analyze the contributions of major contributors to the field from Knowles to Brookfield. Participants explore the evolution of adult learning theory including traditional and emerging views of the practice of adult learning, such as andragogy, self-directed learning, transformative learning, social and cognitive constructivism, and critical reflection. Participants will investigate the importance of the contextual elements of epistemology and cultural issues, such as class, gender and race. They will analyze key contributions to the field of adult development and to the field of adult learning. Students will develop their own educational philosophy document.

ED.610.630. Effective Instructional Strategies and Technologies for Adult Learning. 3 Credits.

Participants learn how to select and use appropriate techniques and strategies, including technology, to create learning experiences aligned with learning goals and their corresponding assessment. Participants experiment with and examine effective elements of interactive lectures, small groups, and case studies. Participants give special attention to the role of technology in enhancing the teaching-learning process. Specifically, participants analyze the impact of various techniques and technologies in order to choose the most effective means to accomplish learning goals.

ED.811.603. Special Education: Promises and Challenges I. 1 Credit.

This course provides: (a) an overview of the characteristics of students with exceptional learning needs and (b) the field's history, laws, procedures and trends. This is a foundational course in special education that will allow participants to explore the state of special education in the United States today and its impact on urban education.

ED.811.604. Special Education: Promises & Challenges II (Elementary). 1 Credit.

This course examines a framework for understanding key concepts in inclusion as they relate to the academic, social, and emotional development of all learners. This course encourages participants to consider the cultural and linguistic issues that influence students' needs as well as families' understanding of special education services.

ED.811.605. Field Experience and Student Teaching I. 1 Credit.

Residents are required to complete three weeks of student teaching during the fall semester to fulfill the field experience obligations of the residency year. The intent of the student teaching experience is to give residents a scaffold opportunity to develop and practice instructional and classroom management skills in a whole class setting as well as plan and deliver targeted tiered instruction. Residents are expected to implement the content and skills developed through coursework and the inherent clinical experiences in a comprehensive manner in the assigned host classroom. This seminar will provide information and support as residents participate in their student teaching practicum for licensure in elementary and secondary English and mathematics school education.

ED.811.606. Field Experience and Student Teaching II. 1 Credit.

Residents are required to complete seven weeks of student teaching during the spring semester to fulfill the field experience obligations of the residency year. The intent of the student teaching experience is to give residents a scaffold opportunity to develop and practice instructional and classroom management skills in a whole class setting as well as plan and deliver targeted tiered instruction. Residents are expected to implement the content and skills developed through coursework and the inherent clinical experiences in a comprehensive manner in the assigned host classroom. This seminar will provide information and support as residents participate in their student teaching practicum for licensure in elementary and secondary English and mathematics school education.

ED.811.608. Classroom Management II. 1 Credit.

In this course, participants will continue to explore models of classroom management with an emphasis on reinforcement techniques to support student behavior. Participants will practice enacting reinforcement techniques while developing appropriate systems to use in the clinical setting. Emphasis will be placed on applied behavior analysis to support adjustments in classroom management systems and techniques.

ED.811.611. Special Education and Inclusion: Promises and Challenges. 2 Credits.

This course provides: (1) an overview of the characteristics of students with exceptional learning needs; (2) the field's history, laws, procedures and trends; and (3) a framework for understanding key concepts in inclusion as they relate to the academic, social, and emotional development of all learners. Participants will begin to consider the cultural and linguistic issues that influence students' needs and families' understanding of special education services.

ED.811.612. Introduction to Assessment and Tiered Instruction. 2 Credits.

This course examines teaching and learning for students with exceptional learning needs in the general education classroom, with specific attention to the role of informal assessment and subsequent differentiation in response to findings. Foci include: (a) best practices for nondiscriminatory assessment, (b) practice administering group and individual informal assessments, (c) knowing how, when, and why to vary learning environments, learning activities, and content, and (d) implementing Tier 1 accommodations/modifications and Tier 2 interventions to support student learning opportunities.

ED.811.613. Clinical Residency: Tiered Intervention Strategies. 3 Credits.

Participants in this course will investigate a Tier 3 intervention in literacy. They will gain a deeper understanding of the reading process and examine when and why reading development breaks down. Participants will also practice techniques and strategies that can be implemented to support struggling readers in grades 2-12.

ED.811.614. Small Group Practicum (Regular and Special Education). 2 Credits.

Participants will select, administer, and interpret formative assessments for small groups of students (6-8 students). Using a diagnostic, clinical teaching model, participants use ongoing data to inform planning and instruction. Participants will formulate reports that delineate student proficiencies and difficulties and offer recommendations for students, parents, and school personnel.

ED.811.615. Formal Assessment and Designing Individualized Education Programs. 1 Credit.

This course provides review of measurement statistics and practice with the administration, scoring, and interpretation of commonly used norm-referenced instruments and procedures for determination of eligibility for special education. Comparisons are made with informal assessment results, and ways to communicate results are discussed. Writing a formal report based on multiple data points is explained and detailed. The IEP process, from referral to eligibility determination and placement, is examined.

ED.811.616. Understanding and Managing Behavior. 2 Credits.

An overview of behavior management is presented within the framework of understanding the context and function of behavior, as well as developing systems that promote prosocial behaviors in the classroom. Residents will consider the interactions of people, environments, and responses to behaviors as factors that influence student behavior. Residents will also demonstrate understanding of Functional Behavior Assessments (FBA) and develop a Behavior Intervention Plan (BIP) as a method to address challenging behaviors.

ED.811.617. Specialized Instructional Techniques. 2 Credits.

Participants will investigate Tier 3 interventions in literacy, math, and behavior to establish how they differ from the kind of support that students already receive, the evidence base for them, the factors that would need to be considered to implement them, the ways in which they are implemented, and the ways to monitor their effectiveness.

ED.811.618. Clinical Residency I. 2 Credits.

Fellows are expected to reflect on their many opportunities to develop and refine their instructional practice and classroom management skills in a whole class setting as well as plan and deliver targeted tiered instruction. Fellows are expected to implement the content and skills developed through coursework and the inherent clinical experiences in a comprehensive manner during their first year as a teacher of record. Fellows will examine the evolution in their unit and lesson planning throughout the year and draw conclusions that inform their ongoing ability to plan targeted, rigorous, and engaging lessons.

ED.811.619. Clinical Residency II. 3 Credits.

Fellows are expected to reflect on their many opportunities to develop and refine their instructional practice and classroom management skills in a whole class setting as well as plan and deliver targeted tiered instruction. Fellows are expected to implement the content and skills developed through coursework and the inherent clinical experiences in a comprehensive manner during their first year as a teacher of record. Fellows will examine the evolution in their unit and lesson planning throughout the year and draw conclusions that inform their ongoing ability to plan targeted, rigorous, and engaging lessons.

ED.811.620. Foundations in Elementary Education: Introduction to Teaching and Learning. 3 Credits.

In this course, participants will begin to examine the features of high-quality instruction and in what ways are they the same and different across the content areas. Participants will explore the issues central to urban education, including race, culture, and diversity, as well as the importance of building relationships with students and families. Participants will also explore the ways in which colleagues can support each other in improving the teaching practice of all.

ED.811.621. Language Development in Children. 2 Credits.

In this course, participants will begin to learn about language development. Participants will examine various aspects of language development, including second language acquisition and dialect, including the milestones that mark English and second language development at various stages, and the factors that influence first and second language acquisition and development. Participants will also explore how language-rich environments and practices contribute to lasting language development.

ED.811.622. Number, Operations, and Algebraic Thinking I. 2 Credits.

Participants investigate the conceptual and procedural knowledge involved in learning to count, understanding our number system, and adding and subtracting whole numbers. Particular attention is given to the importance of the representation and communication of mathematical ideas, the attributes of worthwhile tasks, and to gaining a deep understanding of the ways in which algebraic thinking underpins arithmetic.

ED.811.623. Classroom Management 1 (Elementary). 1 Credit.

In this course, participants explore multiple models of classroom management systems and techniques that support student behavior and learning outcomes. Participants will practice enacting the fundamentals of classroom management – building relationships, strong presence, explicit directions, and positive narration. Participants will develop routines and procedures for implementation in the clinical setting.

ED.811.624. Number, Operations, and Algebraic Thinking II. 3 Credits.

Participants investigate the conceptual and procedural knowledge involved in multiplying and dividing whole numbers; gaining a deep understanding of the meaning of fractions, decimals, percentages and integers; and operating with rational numbers and integers. Particular attention is given to the importance of the representation, communication, and assessment of mathematical thinking as well as the ways in which algebraic structures and generalizations deepen arithmetic thinking.

ED.811.625. Emergent Literacy. 3 Credits.

This course will prepare participants for teaching literacy in early grades classrooms. Participants will be immersed in the instructional methodology that support the social, cultural, cognitive, and linguistic aspects of young children's reading and writing development in the classroom. Emphasis will be placed on utilization of assessment and its data to guide instructional planning aligned to K-2 standards. Additionally, participants will explore ways technology and new literacies practices can be used to support and enhance instruction.

ED.811.626. Social Studies Methods. 3 Credits.

Participants are given an overview of social studies via a close study of state and national standards. They come to understand the teacher's role in designing social studies instruction that engages students in relevant interpretation of a historical event, movement, or period. Geography as a means of helping students make sense of the world around them and civics education through the lens of social justice and active citizenship are also addressed.

ED.811.627. Elementary Content Area Reading. 2 Credits.

This course will give participants an in-depth understanding of nonfiction reading, writing, and researching. Participants will (1) explore nonfiction literature (2) analyze the processes of reading and writing in the content areas, and (3) conceptualize, design, and implement a content area research project with their students. Using a workshop model, participants will be immersed in the process of researching and reporting out new content knowledge first as learners, and then through the lens of a teacher.

ED.811.628. Intermediate Literacy. 2 Credits.

This course will prepare participants for teaching literacy in intermediate grades classrooms. Participants will be immersed in instructional methodology that supports the development of literacy in grades 3–6. Emphasis will be placed on the teaching of reading and writing as a means of developing comprehension, critical analysis, and discourse of fiction and nonfiction text. Additionally, participants will focus on the selection and utilization of relevant complex digital and print materials.

ED.811.629. Measurement, Data, and Geometry. 2 Credits.

Participants investigate the conceptual and procedural knowledge involved in measurement, geometry, and data. Particular attention is given to connections among these domains; ways these domains support learning in other areas of mathematics; and strategies for interdisciplinary learning. The use of technology to support conceptual inquiry-based learning is also emphasized.

ED.811.630. Supporting Writer's Development. 2 Credits.

This course prepares participants for the thoughtful examination of writers and writing instruction. Throughout the course, participants will be introduced to strategies and skills they can use to enhance their own writing and the writing of their students. Using a process approach and workshop model, participants will learn how to teach students to communicate ideas effectively in a variety of genres, for different purposes, and for diverse audiences.

ED.811.631. Teaching STEM in the Elementary Grades. 3 Credits.

The overarching goal of this course is for participants to experience inquiry as learners and doers of science; to demonstrate knowledge of continuous assessment strategies; and to develop the ability to utilize assessment to guide science instruction at the elementary level. Coursework experiences will allow the participants to reflect on their planning or delivery of science, to reflect on the science teaching of others, to reflect on themselves as a learner of science, and to reflect on the opinions of science experts.

ED.811.632. Small Group Literacy Practicum. 2 Credits.

This course will use a guided reading approach to support participants' ability to plan for and deliver effective small group differentiated instruction. After administering and interpreting formative assessments, participants will select a small, inclusive group of 3–5 students that they will support across the semester, 4–5 days a week, for 30–45 minutes per day. This course will prepare participants to administer academic supports to targeted student groups as an appropriate tier II intervention.

ED.811.635. Children's Literature.

In this course, participants will immerse themselves in the study of a wide variety of children's literature including traditional and nontraditional texts, informational texts, and media texts. Participants will understand the different variables for choosing texts by class and individual child. Participants will use research and literary criticism, along with their deepening content knowledge, to develop a lens for analyzing texts in terms of possible instructional purposes, student access and interests, and issues of equity (both for biased representations and the cultural and linguistic challenges of texts). Participants will examine the use of assessment strategies to select and design instruction to meet specific learning goals and will monitor progress. Data will be used to plan further lessons, systematically mark growth, and differentiate instruction for student success.

ED.811.640. Secondary ELA Immersion and Discourse. 3 Credits.

This course models a productive and nurturing classroom environment. Participants become completely immersed in their own learning about reading and writing, speaking and viewing, and discussing texts of all kinds. For each sequence of instruction, participants debrief the learning and the instructor's onstage/offstage decision making. Participants also develop and present lessons that are closely aligned to the Common Core State Standards.

ED.811.641. Language Acquisition. 3 Credits.

Participants will look deeply at three major topics that are important to supporting linguistically and culturally diverse students in urban, secondary education settings: language variation, academic language, and second language acquisition. The course will explore these interrelated topics, attending to both socio-cultural and cognitive-linguistic perspectives on learning and learning environments. The purpose of the course is to guide educators to use linguistic awareness to inform their teaching. The course will examine the Common Core State Standards and the role of language in assessment.

ED.811.642. Reading Diagnosis and Intervention. 2 Credits.

In this course, participants will deepen their understanding of reading processes, methods of reading assessment, and reading intervention strategies. They will assess students' skills and knowledge in word recognition, fluency, vocabulary, and reading comprehension, and prepare lessons in response to students' needs. To ensure effective management and clear communication with colleagues and caregivers during the first semester as lead instructors, participants will prepare thorough plans for classroom procedures related to reading assessment and instruction, and they will develop careful scripts for conferences. Course sessions will include time for collaborative lesson planning.

ED.811.643. Writing in the Secondary Classroom. 3 Credits.

This course prepares participants for the thoughtful examination of writers and writing instruction. Throughout the course, participants will be introduced to strategies and skills they can use to enhance their own writing and the writing of their students. Using a process approach and workshop model, participants will learn how to teach students to communicate ideas effectively in a variety of genres, for different purposes, and for diverse audiences. Explicit attention will be paid to reading and writing connections, and technology will be used to explore new literacy practices. Data will be used to plan lessons, monitor progress, provide ongoing feedback, and differentiate instruction.

ED.811.644. Genre Study I: Argument and Informational Texts. 3 Credits.

This course is divided into two modules: immersion in reading and writing informational texts, and immersion in reading and writing argument. Participants will analyze texts to identify the characteristics, structures, and techniques commonly used in a variety of texts within each genre. Participants will develop and deliver comprehension lessons in each genre and will develop two mini-units, one that integrates reading and writing of informational texts and a parallel one for argument.

ED.811.645. Selecting Texts for Secondary ELA Instruction. 2 Credits.

In this course, participants explore a wide range of texts and genres for their quality, complexity, and the diverse roles they play in secondary ELA. Methods will be introduced for finding and locating texts appropriate for and appealing to urban teenagers. Participants will evaluate canonical, contemporary, and young adult books to consider the challenges and opportunities they provide. In addition to developing the vocabulary for analyzing how texts operate, participants will explore quantitative and qualitative methods for targeting their complexity. Participants will also examine how the text complexity of any single text is dependent on classroom context and the additional texts being used in conjunction with it, through the process of reading and then designing original multimodal, multi-genre text sets.

ED.811.646. Genre Study II: Poetry, Drama, and the Novel. 3 Credits.

Adolescents need opportunities to read, respond to and write in the creative genres: poetry, drama and the novel. First as learners and then as teachers, participants will read and analyze texts in the three genres (including contemporary texts and those traditionally taught at the secondary level), fostering and developing student stamina and engaging adolescent interest. Participants will 1) investigate the reading, writing and critical thinking skills required of students when reading and responding to complex texts, 2) identify the challenges unique to teaching diverse learners, and 3) conceptualize, design and implement a unit study with students in one of the three genres. (3 credits)

ED.811.650. Secondary Math Immersion. 3 Credits.

This course is designed to provide participants with an overview of mathematical thinking and reasoning put forth in the Common Core State Standards for grades 6-12. Participants will experience first-hand a mathematics learning environment that places a premium on students' mathematical sense-making. The overarching goal of this course is to immerse participants in the kind of high cognitive demand math learning experiences they will ultimately provide for their own students. Participants will not only leave this course with lasting images of high quality mathematics instruction, they will also be able to connect those images to specific exemplary teacher behaviors articulated in the Urban Teachers' Teacher Practice Rubric.

ED.811.651. Proportional Reasoning. 3 Credits.

Participants will work with their small group teaching assignments to integrate ideas of proportional thinking, such as using a factor-of-change, a ratio table, cross-multiplication, and scaling up and down. This work with their students will provide an opportunity for exploring ways to identify a student's level of understanding for proportional thinking, such as the ability to differentiate between additive and multiplicative relationships, and developing tasks and activities that will correct and deepen that understanding.

ED.811.652. Algebra, Functions, and Modeling in the Real World. 3 Credits.

This course aims to provide participants with a rich understanding of essential concepts undergirding high school algebra, functions and the modeling process. Participants consider critical components of how students in grades 6-12 develop algebraic thinking and skill, beyond traditional focus on algebraic manipulations. An in-depth focus on functions in the course allows participants to systematically explore and analyze patterns, change and relationships among quantities in everyday events and problems in life and society. Participants will further their algebra experience by exploring functions as fundamental mathematics objects that allow us to model real life situations. Understanding and applying components of the modeling process allows participants to examine authentic real-world situations by building mathematical models and applying solutions using the lens of culturally relevant pedagogy and social justice mathematics.

ED.811.653. Math Methods I. 2 Credits.

This course is designed to provide participants with initial structure and resources to provide a framework for teaching that includes data collection, case analysis, small group instruction, whole group paired and individual instruction. Participants will discuss effective methods for lesson planning, incorporating the needs of students with IEPs and 504 plans, and assessment. Participants will have the opportunity to rehearse lessons prior to implementation and respond to feedback.

ED.811.654. Geometrical Thinking. 2 Credits.

In this course participants learn how students in grades 6-12 develop geometric thinking and skill; learn and practice the skills necessary to plan; and enact and reflect on teaching in terms of its effect on student learning. Through field experiences, observation, reflection and reading, participants will continue to identify and analyze teacher moves and mathematical tasks in terms of how well they support the development of students' geometric thinking.

ED.811.655. Math Methods II. 2 Credits.

This course will continue the work done in Math Methods I around planning, collaborating, data collection, self-assessment, rehearsal, revision of lessons to suit students' needs, and general support. Participants will continue to receive guidance on addressing the Specially Designed Instruction (SDI) needed for students with IEPs and 504 plans. This course will focus on issues arising in the participants' clinical work providing effective math instruction to a diverse group of learners.

ED.811.656. Practices Concepts, and Core Ideas in Secondary Science (6-12). 3 Credits.

This course integrates space, engineering, technology, and physical, life, and earth science. Participants will experience inquiry as learners and doers of science and demonstrate knowledge of the practices, crosscutting concepts, and disciplinary core ideas articulated in the Next Generation Science Standards at the middle and high school levels. Participants will reflect on their planning and delivery of science, the science teaching of others, themselves as learners of science, and the opinions of science experts. (3 credits)

ED.811.660. Foundations in Secondary Education: Introduction to Teaching and Learning. 3 Credits.

In this course, participants will be pushed to see themselves as diversity advocates that understand and respect differences among adolescent learners in their classrooms, schools, and communities. They will explore how to become diversity advocates by first understanding their own beliefs and biases so as to better understand those around them, particularly those that have chosen to serve: urban youth. They will learn that in order to become highly-effective teachers that will build upon the strengths and skills of urban youth and their families and communities, they will need to build healthy, meaningful relationships and promote academic achievement. Participants will also explore the intersection of beliefs and practices through the examination of various learning theories and frameworks for effective, culturally responsive secondary instruction. Through the examination of social, political, economic and racial readings, case studies and discussion, participants will immerse themselves in the work of urban education and self-examination.

ED.811.661. Secondary Classroom Management Seminar. 1 Credit.

This course will focus on introductory exposure to classroom management through readings, discussion, practice, and reflection. Participants will develop an understanding of effective classroom management systems by actively implementing strategies in a summer classroom placement. Participants will also be introduced to the concept of the school-to-prison pipeline and its relationship to classroom management and disciplinary practices. Participants will learn about and understand how effective classroom management strategies, procedures, and strong student-teacher relationships can help counteract the school-to-prison pipeline.

ED.811.662. Reading Processes and Acquisition. 1 Credit.

This course introduces participants to reading processes and acquisition. Specifically, the fundamental principles of reading and reading acquisition are presented and discussed. Participants will learn how young children learn to read, where reading developmental may break down, and about issues common among adolescents who struggle to make meaning of grade-level texts in the classroom. Participants will be introduced to instructional strategies, materials, and classroom-based assessments to support the adolescent reader.

ED.811.663. Secondary Content Area Reading/Literacy. 2 Credits.

This course explores how listening, speaking, reading, writing, and viewing are tools for both accessing and demonstrating content knowledge within an academic discipline at the secondary level. Through the lens of disciplinary literacy, participants will explore the centrality of word knowledge in the academic disciplines, and a range of reading and writing strategies to support comprehension of diverse content area texts.

ED.811.664. Self-Management of Learning. 2 Credits.

This course focuses on the concept of self-management and its critical role in promoting student achievement in secondary classrooms. It is meant to give teachers an understanding of how to cultivate and build upon their students' interests in learning in order to promote self-management skills. The course will discuss learning theory and motivation as it relates to adolescent learning. Participants will have opportunities to practice and implement lessons that support students' self-management skills, and ultimately student success.

ED.811.665. Trauma Training. 1 Credit.

This course is designed to help participants develop skills to support students who have experienced trauma. Participants will also examine current research about trauma-sensitive classroom environments that promote student learning and interpersonal skills for coping with trauma.

ED.811.667. Social Studies Inquiry: Content Area Reading and Writing. 2 Credits.

This online course will engage participants in the inquiry process as learners. Participants apply this process as they design and plan a thematic social studies inquiry unit that supports students in becoming agents of change in the communities in which they reside through historical, cultural, political, and geographical exploration. Specific attention is given to developing rigorous and meaningful units of study to support students in developing relevant content knowledge through multimodal texts using content area and disciplinary literacy practices. Participants will utilize their understanding of literacy practices from previous coursework and social studies methodology to support students in achieving the goals of this unit of study.

ED.811.670. Race, Culture, and Equity in Urban Education. 2 Credits.

In this course, residents will be prompted to see themselves as diversity advocates who understand and respect differences among learners in their classrooms, schools, and organizations. They will explore how by first understanding their own beliefs and biases they can then begin to better understand those around them; particularly those they have chosen to serve – students. They will learn that in order to become effective teachers who will build upon the strengths and skills of urban students and their families and communities they will need to build healthy, meaningful relationships and promote academic achievement. Residents will also explore the intersection of beliefs and practices through the examination of various learning theories and frameworks for effective, culturally responsive instruction.

ED.811.671. Reading, Writing, and Language Development. 2 Credits.

This course provides a foundational understanding of the ways children develop in the areas of reading, writing, speaking and listening. Participants will be immersed in the social and cultural perspectives related to literacy development, the developmental stages of literacy, the five components of reading instruction (phonemic awareness, phonics, fluency, vocabulary, and comprehension) and instructional methods and materials for supporting the literacy development of students with diverse language and learning needs.

ED.811.672. Numbers, Operations, and Algebraic Reasoning. 2 Credits.

This course focuses on building the content understandings and pedagogical skills to teach elementary mathematics. Participants investigate the procedures, concepts, models, and representations that are required to understand our base-ten number system and operations with whole numbers, fractions, and decimals. Additionally, participants will experience and plan for Mathematics Workshops as a structure for implementing equitable, high quality mathematics teaching and learning. Participants will rehearse and plan effective teacher moves for facilitating a student-centered Mathematics Workshop lesson. Particular attention is also given to unpacking standards, identifying quality math tasks, and planning instruction which places emphasis on the representation and communication of student mathematical thinking and reasoning. Participants will also rehearse, plan, and implement effective teacher behaviors that foster student engagement in the eliciting and synthesis of mathematical ideas.

ED.811.673. Counting & Cardinality. 1 Credit.

This course focuses on the scope and sequence of mathematics concepts and skills and developmentally appropriate environments for young learners. Participants will learn about the learning trajectories for number sense, counting, and cardinality. Participants will engage young learners in academic discourse to uncover student thinking and to assess student readiness. Participants will also examine, plan, and implement instructional routines that engage young learners—including examining and discussing appropriate models and manipulatives to support the acquisition of automaticity, fluency, and conceptual understanding.

ED.811.674. Small Group Math Practicum. 2 Credits.

Small Group Practicum is designed to provide participants with a rigorous opportunity to work intensively with a small group of elementary students to provide Tier 2 mathematics intervention instruction using the Number Sense Screener, Number Sense Interventions, Do the Math, or a specialized program for pre-k. Participants learn how to assess and analyze the mathematical skills and knowledge of their students using appropriate diagnostics from the intervention program. Participants will practice using pre-test data to plan and implement Tier 2 mathematics lessons. Participants will monitor the progress of students over the course of the 12+ weeks of small-group instruction with the goal of monitoring the student achievement and attendance of 3–4 children. Mathematics intervention instruction, excluding assessments, occurs 4–5 days a week, for 45 minutes per day, for 12+ weeks (i.e., a total of 45 hours).

ED.811.675. Geometry for Elementary Grades. 2 Credits.

In this course, participants will be immersed in the progression of the standards for geometry in grades K–5. Participants will acquire knowledge about the theoretical model of geometric understanding (Van Hiele) and use this to select a math task aligned to standards, develop lesson plans, and analyze and use student performance data to inform future instruction. Emphasis will be placed on identifying community assets and resources and leveraging those assets to plan geometry instruction that is real-world, authentic, and meaningful for elementary learners. Participants will demonstrate their understanding of geometric progression in the standards, levels of geometric understanding, and community assets by developing a week-long unit.

ED.811.676. Measurement and Data. 2 Credits.

This course focuses participants on developing understanding of the strands of mathematical proficiency involved in concepts of measurement and data in grades K–5. Participants are immersed in the progression of the measurement and data standards aligned to the state standards for mathematics at grades K–5. Emphasis is placed on participants examining the crosscutting mathematics concepts that are connected to measurement and data topics (e.g., Algebraic Reasoning or Number & Operations). Participants acquire strategies for helping students monitor their learning, rehearse the planning of lessons that embed choice options (process), and differentiate the demonstration of learning for students (product).

ED.811.679. Adolescent Development and Urban Youth. 1 Credit.

This course is designed to build an understanding of adolescent development and apply that knowledge to practice as teachers of adolescent learners. It is intended to create teachers who are more informed and better prepared to respond to the abilities, behaviors, and needs of adolescent learners. To that end, residents will explore adolescent development through an examination of their physical, cognitive, and socio-emotional development. In addition, as teachers of adolescents in urban communities, they will also examine how issues related to race and gender identity inform and impact the development of nurturing and productive classroom environments that create inclusive learning spaces for all students

ED.855.600. Extended Learning I.

Students will participate in a variety of informal educational experiences, from guest lectures and one-on-one mentor conversations, to exploring how the use of museums, cultural institutions, and other real-world scenarios can be leveraged to promote learning. Students will both learn from these experiences as well as gain exemplars to implement in their own educational systems.

ED.855.601. Extended Learning II.

Students will participate in a variety of informal educational experiences, from guest lectures and one-on-one mentor conversations, to exploring how the use of museums, cultural institutions, and other real-world scenarios can be leveraged to promote learning. Students will both learn from these experiences as well as gain exemplars to implement in their own educational systems.

ED.855.602. Extended Learning III.

Students will participate in a variety of informal educational experiences, from guest lectures and one-on-one mentor conversations, to exploring how the use of museums, cultural institutions, and other real-world scenarios can be leveraged to promote learning. Students will both learn from these experiences as well as gain exemplars to implement in their own educational systems.

ED.855.603. The Early Childhood Learner. 3 Credits.

This course focuses on the growth and development of the young child, including current theory and practice in child development and neuroscience. Early childhood educators will analyze the diversity of learner characteristics in young children, including growth and development in the cognitive, physical, and social-emotional domains.

ED.855.608. Comparative High Quality Practices in Early Education. 3 Credits.

This course presents research-based content on high quality, developmentally appropriate practices in early childhood education. Early childhood educators will incorporate tenets of learning theory into proposed lesson planning that reflects developmentally appropriate and inclusive practices for young children. Early childhood educators will demonstrate strategies for professional development and coaching of peers and families in developmentally appropriate practices.

ED.855.609. Introduction to Entrepreneurship in Education. 3 Credits.

This course provides students with the foundational skills necessary to think and behave entrepreneurially within educational systems and organizations in order to solve intractable problems. Students will formulate an understanding of themselves as entrepreneurs and intrapreneurs, evaluate entrepreneurial opportunities around them, and develop a method for solving a problem relevant to them. Further, students will learn the role of capital and socially conscious capitalism in creating sustainable ventures.

ED.855.614. Planning a New Venture in Education. 3 Credits.

This course provides students with a survey of the skills necessary to plan a new venture in education, either within an organization or a brand-new enterprise. Topics taught in this course include Human Resources, Sales and Marketing, Finance and Budgeting, and Leadership.

ED.855.630. Authentic Assessment and Measuring Child Outcomes and School Readiness. 3 Credits.

This course presents foundational concepts of authentic assessment in early childhood, including the types and purposes of assessments for young children and accompanying requisite skills in their administration. Early childhood educators will learn interpretation of assessment data and apply assessment data results to program planning in the implementation of early childhood programs.

ED.880.603. Educating the Whole Child: Teaching to the Developmental Needs of the Urban Child. 3 Credits.

This course will focus participants' learning on child and adolescent development consistent with developmental pathways: cognitive, linguistic, emotional, social, and physical. Topics include the needs of urban school children relative to health care, nutrition, differentiation, inclusion, special education, gifted education, arts education, higher order thinking and creative problem-solving.

ED.880.610. Writing Grant and Contract Proposals for Health Professions Education. 3 Credits.

Students in this course gain practical experience in writing grant and contract proposals addressing the education of health professionals for submission to state and federal agencies and to private organizations. Course topics include: 1) the purposes of federal grant and contract programs; 2) private and public sources of financial assistance for research and development activities; and 3) methods and procedures for writing technically sound proposals. Each student writes a complete grant or contract proposal during the semester.

ED.880.611. The Social Context of Urban Education. 3 Credits.

The course examines the role played by culture, race, language, and class in creating the conditions that lead to structured inequality of educational outcomes in urban areas. Through a diverse set of readings, students will consider questions such as: What is the role of a state-sponsored, public education in a multicultural democracy? Should all students receive the same education, both in terms of curriculum and pedagogy? Why might some students resist efforts to educate them? Does education reproduce social divisions or provide a way for the most talented to rise in society? Through an exploration of these and related questions, the class addresses the relationship between the concepts of race, language and culture; the controversy over efforts to take language into account in the teaching of some students; "multicultural" approaches to education; pedagogical interventions meant to (a) reach "culturally diverse" learners, and (b) create culturally diverse learners; and the role of education in a pluralistic, democratic society.

ED.880.613. Teaching, Learning and Leadership for Successful Urban Schools. 3 Credits.

This course will examine the principles, policies, and practices of leadership and instruction that promote effective schools. Students will be exposed to the Effective Schools Correlates, the principles of the Coalition of Essential Schools and numerous efforts on the local and state and federal level designed to improve the quality of education, particularly as those practices and policies affect urban student achievement. Students will weigh the traditional patterns of teaching, learning, and governance with current federal, state, and local standards and new evidence-based, collaborative practices. Emphasis will be placed on examining models and methodologies currently in use in Baltimore City Public Schools and other local metropolitan areas. Students will use this research and knowledge as a basis for selecting effective methods that could be adapted to their particular setting.

ED.880.617. Urban School Reform. 3 Credits.

This course examines systemic school reform movements in the urban school context. School reform occurs at many different levels, from the classroom level with individual teachers, to the national level with federal mandates. We will explore reform at different levels and analyze the theory, policies, practices, and controversies of various mechanisms of reform, including the K-8 movement, small high schools, school choice (charters and vouchers), mayoral control, merit-pay, and alternative routes to teaching. Participants will synthesize information about school reform in urban schools and systems and will reflect on their role in this process. Final evaluation of reform strategies will be grounded in the effect these reforms are having on improving learning for all students in urban schools.

ED.880.623. Instructional Design for Online Learning. 3 Credits.

This course will guide participants through a process of designing online instruction for adult learners, applicable for a variety of content areas and settings. Building upon a research-based instructional design model, participants will plan online learning experiences that combine pedagogy, organization, design, and technology. Participants will be able to design media-enhanced, engaging online activities and assess learning.

ED.880.624. Evaluation and Research in Education. 3 Credits.

This course is an introduction to research design and methodology for students working toward a master's degree or graduate certificate within the School of Education. It enables students to design a research project proposal while developing the intellectual tools needed to critique research within a designated area of specialization. This seminar will be invaluable for students who will be completing an action research project or master's thesis as a requirement for graduation.

ED.880.629. Evidence-Based Teaching. 3 Credits.

This course prepares participants for leadership in education through translation of the best available evidence and application of research into educational practice. Students will develop the skills and knowledge needed to review and synthesize the strength of evidence available, and recommend educational practice changes if indicated. Topics include: a review of the research process, research critique, rating and synthesizing the strength of evidence, decision making for educational practice in the health professions, and research and research translation opportunities. Participants will add relevant content to their professional portfolio through this course.

ED.880.631. Ensuring Learning through Assessment and Feedback. 3 Credits.

This course prepares participants to demonstrate their ability to build an educational experience from the perspective of assessing student learning achievement. They will review the literature on assessment and examine the processes to align learning goals and objectives with corresponding learning experiences, assessments and scoring guides. In addition, they will examine the use of formative and summative feedback to monitor and evaluate learning. Moreover, they will explore approaches to providing feedback and will engage in scenarios to practice and evaluate its use. Finally, participants will critique and evaluate approaches to assessment and feedback in health profession settings. Artifacts from course activities will be posted in participants' professional portfolios.

ED.880.633. Curriculum Development. 3 Credits.

In this course, participants will propose a curricular project in health professions education, which will be documented in their professional portfolio. They will learn and apply six steps to curriculum development: problem identification and general needs assessment, targeted needs assessment, writing goals and specific measurable objectives, choosing educational strategies, implementation, and evaluation. Educational methods include readings, mini-lectures, interactive web modules, discussion groups, and application exercises. The course also addresses issues related to curriculum maintenance and enhancement and dissemination of curriculum-related work.

ED.880.635. Instructional Strategies I. 1.5 Credits.

In this course, participants will learn about various instructional strategies to enhance interdisciplinary learning experiences in health professions education. Instructional methods will include such collaborative educational models as small and large group teaching, team-based, interactive and experiential case-based learning. Techniques will include the use of simulations as well as teaching at the bedside with a focus on educator behaviors that stimulate achievement of learners. With an appreciation of the diversity of the student body, participants will effectively integrate and apply technology into instruction to develop and deliver health professions curricula, including web-based teaching environments, content management systems, collaborative project development, and interactive media with an emphasis on instructional design advancements which affect the learning environment. Evidence of participants' knowledge and application of course topics will be captured in a professional portfolio.

ED.880.637. Instructional Strategies II. 1.5 Credits.

In this course, the principles underlying the assessment and teaching of adult learners will be applied to classroom and clinical settings in both academic and practice environments. Selected learning style models and technology integration strategies will be examined. Emphasis is placed on the selection and application of practical teaching strategies to diverse learners. Specific teaching skills will be analyzed for their applicability to specific methodologies, settings and learners. Course related reflections and products will be posted in participants' professional portfolios.

ED.880.639. Development, Management, and Evaluation of Health Professions Education Programs. 3 Credits.

In this course, participants will demonstrate their ability to implement a systemic approach to program development and evaluation. They will review the literature on program effectiveness and examine the components that contribute to success. They will also approach program development from the perspective of its critical components – population characteristics, needs assessment, content, logistics, instructional formats, implementation, assessment, and evaluation using quantitative and qualitative methods. In addition, participants will incorporate a continuous process of program improvement that includes closing the loop by analyzing information on student performance, stakeholders, trends, and funding to identify changes that will enhance the effectiveness of the program. Course products and reflections will be highlighted in a professional portfolio.

ED.880.641. Leadership in Health Professions Education Programs I. 3 Credits.

Leadership extends beyond management and involves multiple skills. This course addresses: 1) different theories of leadership; 2) self and time management; and 3) leadership of people, including hiring and staffing programs, communication and marketing of ideas/plans, motivation, use of power and influence, delegation and empowerment of others, promoting collaboration, leading and participating in teams, negotiation and conflict management, and integrating diverse backgrounds and perspectives. Participants will develop an understanding of their preferred leadership style through a variety of assessment instruments and create an individually tailored leadership development plan that will be placed in a professional portfolio.

ED.880.642. Leadership in Health Professions Education Programs II. 3 Credits.

Leadership extends beyond management and involves multiple skills. This course addresses: 1) organizational change theory and the leadership of change; 2) leadership of tasks/processes/systems (including principles of task management and the use of strategic planning, quality improvement, policy/procedure and data to achieve organizational goals and promote efficiency); and 3) resource management and creation (including financial management, fund raising, alignment of resource use and development with function and goals).

ED.880.643. Mentoring in Health Professions Education Programs. 3 Credits.

This course will provide an organizational approach to managing and evaluating faculty development and mentoring opportunities, as a means of helping all faculty members realize their potential and achieve their goals and of achieving diversity in leadership. It will review the literature on faculty development and mentoring. Participants will develop the knowledge and skills needed to address specific areas such as orientation of new faculty; policy and procedures to promote faculty development and access to quality mentoring; educational sessions and programs to address teaching methods and educational technology; promotion of research and scholarship in education; and identification of resources needed to facilitate excellence in teaching. Participants will develop their own faculty development plan for a relevant part of their own institution.

ED.880.644. Advanced Simulation Strategies. 1.5 Credits.

This course will explore simulation and how simulation pedagogy contributes to evidence based teaching and assessment. Participants will develop a simulation scenario appropriate for learners at their home institution. Clinical scenarios will be designed using a theoretical framework. Teaching strategies when using clinical simulations will be discussed and development of an evaluation plan to ensure attainment of learning outcomes in simulation will be reviewed.

ED.880.646. Critical Issues in Health Professions Education. 1.5 Credits.

This course provides Fellows in interprofessional health professions' education the opportunity to deepen their understanding of a timely issue important to their practice as teachers, educational researchers, and educational leaders. This course will address specific outcomes among the MEHP outcomes related to these three foci. This course will examine the topics' theoretical foundations and best practice through a literature review, evaluation of current practice, and the design of an application of an intervention with an evaluation or research component. Issues will be identified and addressed as needed. Current issues include: Leading Instructional Design for Online Learning, Survey Design, Advanced Assessment, Qualitative Research, and Advancing Interprofessional Education and Collaboration.

ED.880.647. Educational Leadership Capstone in Health Professions Education I. 1.5 Credits.

In the first half of the Capstone, MEHP Fellows employ principles and concepts from their educational experiences to create an educational leadership/professional development project in health professions education building on their work in the Educational Scholarship courses. Fellows implement their projects under the guidance of capstone instructors and supported by sponsors at their home institutions. In Capstone I, Fellows complete the initial components of their projects including problem statements, literature searches, designs, measures, and implementations. Fellows implement their projects by following prescribed design, implementation, and evaluation guidelines including the development of PERKS and submission of their proposals to the HIRB when appropriate. They begin preparation of scholarly manuscripts of their work for peer-reviewed dissemination or potential publication. Fellows submit deliverables according to the course schedule to their instructors and consult as needed with their institutional sponsors. Fellows may build on educational projects begun in previous courses with the approval of their instructors.

ED.880.648. Educational Leadership Capstone in Health Professions Education II. 1.5 Credits.

In the second half of the Capstone, MEHP Fellows employ principles and concepts from their educational experiences to complete an educational leadership/professional development project in health professions education building on their work in Capstone I. They prepare their work for peer-review and dissemination in a manuscript following identified guidelines for authors. Fellows continue to work under the guidance of capstone instructors and supported by sponsors at their home institutions. During Capstone II, Fellows complete the analysis of data and the development of the report of findings, limitations, and implications for future work. Fellows also prepare a Voice Thread of their work for critique and feedback from both faculty and peers. As part of this course, Fellows also provide peer-feedback on a project of a colleague in the course. Final manuscripts are reviewed by a faculty team.

ED.880.649. Educational Research Capstone in Health Professions Education I. 1.5 Credits.

In the first half of the Capstone, MEHP Fellows employ principles and concepts from their educational experiences to create a research study in health professions education building on their work in the Educational Scholarship courses. Fellows implement their research under the guidance of capstone instructors and supported by sponsors at their home institutions. In Capstone I, Fellows complete the development and implementation of their studies including problem statements, literature reviews, selection of population sample, research methodology, instrumentation, submission of HIRBs, and implementations. They begin preparation of scholarly manuscripts of their work for identified peer-reviewed publications. Fellows submit deliverables according to the course schedule to their instructors and consult as needed with their institutional sponsors. Fellows may build on educational projects begun in previous courses with the approval of their instructors.

ED.880.650. Educational Research Capstone in Health Professions Education II. 1.5 Credits.

In the second half of the Capstone, MEHP Fellows employ principles and concepts from their educational experiences to complete an educational research study in health professions education building on their work in Capstone I. They prepare their work for peer-review and dissemination in a manuscript following identified guidelines for authors. Fellows continue to work under the guidance of capstone instructors and supported by sponsors at their home institutions. During Capstone II, Fellows complete the implementation, analysis of data, and the report of findings, discussion, limitations, and implications for future work. Fellows also prepare a Voice Thread of their work for critique and feedback from both faculty and peers. As part of this course, Fellows also provide peer-feedback on a study of a colleague in the course. Final manuscripts are reviewed by a faculty team. Publication is not required to successfully complete the course.

ED.880.659. Engaging Students through Cooperative Learning. 3 Credits.

Some of the most powerful and widely applicable research-proven instructional practices are cooperative learning practices that are highly effective in engaging and motivating students. When implemented correctly, such practices have been proven to increase student achievement in a wide range of content areas at all grade levels. Cooperative learning models will be explored to understand the variables that differentiate group work from true cooperative learning, including individual accountability and group rewards. The effectiveness of student teams to support learning through peer motivation, peer assessment, and re-teaching will be examined in depth.

ED.880.661. Educational Scholarship: Design. 1.5 Credits.

Participants will develop a proposal for a project in educational leadership or for a study in educational research. They will incorporate their learning from previous courses in the program to outline the study and to begin a preliminary literature review. Participants will create a case to support the need for and contribution of their proposal. The proposal will be further developed in ED.880.662 Educational Scholarship: Implementation.

ED.880.662. Educational Scholarship: Implementation. 1.5 Credits.

Participants will continue the development of their proposals begun in the ED.880.661 Educational Scholarship: Design course. With feedback from mentors and the instructor, participants will research appropriate methodologies as possible venues for the study. They will finalize the proposal and submit for review by the instructor and faculty team. Proposals must be approved in order for participants to proceed with the completion of the master's degree. Participants in the certificate program will implement their proposals as an educational project.

Prerequisite(s): Prereq is ED.880.661[C]

ED.880.665. Mixed Methods Research. 3 Credits.

Participants will examine the nature of mixed methods research including definitions and applications to research questions. They will explore its foundation and review of various designs. Through the course, they will be able to introduce mixed methods research to their own research questions and to describe appropriate approaches to data collection, analysis, and interpretation. They will demonstrate the ability to write and evaluate mixed methods research.

ED.880.667. Applied Statistics. 3 Credits.

This course covers some of the core statistical techniques used in research and analysis. It is targeted to graduate students with limited prior experience in statistics but a willingness to learn statistical concepts and an enthusiasm for quantitative data analysis. The course will cover several techniques for describing data, estimating attributes of populations, and hypothesis testing. Some time will be spent reviewing and understanding analysis implications, assumptions and challenges when using different levels of measurement. The course will also discuss ANOVA, as well as predictive modeling with a particular focus on the role of regression (continuous and dichotomous dependent variables) in data analysis. The core of the course is the application of statistical concepts covered – it will not focus on the mathematical and statistical computations behind the various techniques. The best way to learn this material is by working through examples and assigned problems, as well as reviewing the literature using the different approaches. Consequently, students will complete problem sets using SPSS, write a data analysis proposal and submit an article critique. These assignments aim to connect the concepts discussed in class with the tools of data analysis in practice.

ED.880.830. Graduate Project in Interdisciplinary Studies. 3 Credits.

Students of demonstrated ability with special interest in interdisciplinary projects study under the direction of a faculty member in the School of Education. Students must meet with their faculty adviser and prepare an outline of their proposed project prior to registration.

ED.883.812. Data Workflow. 3 Credits.

This course is designed to teach students the skills necessary to for them to develop efficient and accurate practices for handling, preparing, documenting and analyzing data for investigation. Students will be taught fundamental concepts of workflow, data cleaning, and statistical computing/programming.

ED.887.611. Understanding Human Behavior and Helping Relationships, Part I. 3 Credits.

This course provides an introduction to the various helping professions that are available to support teachers in their work with students, including school counselors and clinical mental health counselors. The differences between these helping professions and services provided through special education will be discussed. The course addresses various approaches to helping students, as well as means for collaborating with helping professionals, consulting with other school leaders, and counseling students. Finally, students will learn how to use data in making decisions about how best to address socio-emotional issues so as to promote academic achievement.

ED.887.612. Understanding Human Behavior and Helping Relationships, Part II. 3 Credits.

Building on the information presented in Understanding Human Behavior and Helping Relationships, Part I, this course examines ways of assisting with emotional disorders that teachers may face in the classroom. The main focus of the course is on recognizing the signs of these disorders and working with the school counselor to support children with these diagnoses in the classroom setting. General school issues such as bullying and abuse prevention will also be covered.

ED.887.615. Explorations in Mind, Brain, and Teaching. 3 Credits.

During the past decade, the learning sciences have produced a vast frontier of knowledge on how the brain processes, stores, and retrieves information. Educators have increasingly recognized a role as consumers of this emerging knowledge. Participants in the course will review this research, examining how it intersects with the correlates of a model of research-based effective teaching including the teaching of the arts across content areas. Topics of study will include the brain's memory systems, the impact of emotions on learning, the processes involved in higher order thinking and learning, and issues related to child development. Participants will apply course studies to the creation of learning units that emphasize application of knowledge and the integration of the arts. (3 credits)

ED.887.616. Fundamentals of Cognitive Development. 3 Credits.

This introductory course surveys theoretical and empirical work in the study of cognitive development. A variety of methodological approaches are addressed, with a focus on cognitive processes related to learning. The course proceeds from behaviorist, cognitivist, and sociocultural perspectives of the early and mid- 20th century to recent and ongoing research in the neuro- and cognitive sciences. Topics include the development of language, motivation, and intelligence, as well as the acquisition of skills and concepts related to mathematics, reading, writing, and problem-solving. Implications for education are considered.

ED.887.617. Neurobiology of Learning Differences. 3 Credits.

This course is intended to prepare educators with information about how differences and disabilities in brain development impact the abilities of school aged children and adolescents to participate in instructional activities. Particular attention is given to autism spectrum disorder (ASD), specific learning disabilities (SLD), attention deficit disorder and attention deficit disorder with hyperactivity (ADD and ADHD), and psychiatric disorders that are found in the constellation of disabling conditions identified as emotional disturbance (ED). The course will include case studies of students with each disabling condition, with a focus on how the disability affects learning, the current status of imaging technologies, and the current uses of medications for assisting students in school settings. Students taking this course will review research and link information from lecture to the creation of an instructional unit demonstrating knowledge of how a disabling condition can be accommodated in school.

ED.887.618. Cognitive Processes of Literacy & Numeracy. 3 Credits.

This course is designed to offer students an opportunity to study, discuss and explore aspects of brain function that influences learning, remembering, and utilizing textual and numeric concepts. The inter-relationship of developmental factors, prior knowledge, instructional design and implementation, and assessment mandates will be investigated and discussed. Current research, differentiated strategies, technologies and the impact of disabilities will be included.

ED.887.619. Special Topics in Brain Sciences. 3 Credits.

This capstone course addresses specific topics in brain research and encourages the participants to apply research to inform instructional practices.