CURRICULUM AND INSTRUCTION (EDCI)

400 Level Courses

EDCI 423: Methods for Teaching PK-6 English Learners in Inclusive Classrooms. 3 credits.
Examines current research, theory, and policy as applied to teaching and learning with K-6 English learners (ELs). Explores research-based methods, instructional frameworks, and culturally and linguistically responsive strategies for teaching ELs effectively in K-6 inclusive classrooms. This course requires 15 hours of field observation. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). Limited to two attempts.
Recommended Corequisite: EDUC 301 with a minimum grade of C or XS or permission of instructor
Schedule Type: Lecture
Grading:
This course is graded on the Undergraduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 490: Student Teaching in Education. 6 credits.
Provides intensive, supervised clinical experience in approved school for fall or spring semester. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). Limited to three attempts. Equivalent to SEED 492, SEED 493, SEED 494, SEED 496.
Required Prerequisite: Completion of licensure and all endorsement course work.
Registration Restrictions:
Enrollment is limited to students with a major, minor, or concentration in Secondary Ed - Biology 6-12, Secondary Ed - Chemistry 6-12, Secondary Ed - Mathematics 6-12, Secondary Ed - English 6-12, Secondary Ed - Physics 6-12 or Secnd Ed - Earth Science 6-12.
Schedule Type: Internship
Grading:
This course is graded on the Undergraduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 491: Internship Seminar in Secondary Training. 2 credits.
Focuses on critical reflection regarding effects of teacher actions others; develops skills as reflective practitioner; presents research-based rationales for instructional decision-making. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). Limited to three attempts. Equivalent to SEED 491.
Recommended Prerequisite: Admission to the professional semester.
Recommended Corequisite: EDCI 490.
Registration Restrictions:
Enrollment is limited to students with a major, minor, or concentration in Secondary Ed - Biology 6-12, Secondary Ed - Chemistry 6-12, Secondary Ed - Mathematics 6-12, Secondary Ed - English 6-12, Secondary Ed - Physics 6-12 or Secnd Ed - Earth Science 6-12.
Schedule Type: Seminar
Grading:

EDCI 510: Linguistics for PreK-12 ESOL Teachers. 3 credits.
Examines language as a system, with particular focus on teaching culturally and linguistically diverse students in grades PreK-12. Considers teaching implications of phonology, morphology, syntax, semantics, and pragmatics. Fieldwork hours are required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Registration Restrictions:
Required Prerequisites: (EDRD 515B or 515XS) and (EDUC 511B or 511XS) and (EDUC 537B or 537XS).
B- Requires minimum grade of B-
XS Requires minimum grade of XS.
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.
Enrollment is limited to students with a major in English as a Second Language or Curriculum and Instruction.
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Lecture
Grading:
This course is graded on the Undergraduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

500 Level Courses

EDCI 516: Bilingualism and Language Acquisition Research. 3 credits.
Examines first and second language acquisition theories past and present. Explores how PK-12 bilingual and multilingual learners’ cultures and languages are valuable assets in classrooms and addresses implications for instruction and assessment. Develops understanding of research around instructional environments that promote bilingualism and biliteracy. Fieldwork hours are required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Registration Restrictions:
Required Prerequisites: (EDRD 515B or 515XS) and (EDUC 511B or 511XS) or 511 or 537 or 537XS).
B- Requires minimum grade of B-
XS Requires minimum grade of XS.
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Lecture
Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 519: Methods of Teaching Culturally and Linguistically Diverse Learners. 3 credits.  
Examines approaches, methods, and techniques for teaching culturally and linguistically diverse learners in bilingual and ESL classrooms, as well as resources available in the field. Critically analyzes and demonstrates teaching approaches based on second language acquisition research, including teaching language through content. Fieldwork hours are required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.  
Registration Restrictions:  
Required Prerequisites: (EDCI 510^B or 510^XS) and (EDCI 516^B or 516^XS).  
*B- Requires minimum grade of B-.  
*XS Requires minimum grade of XS.  
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.  
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.  
Students in a Non-Degree Undergraduate degree may not enroll.  
Schedule Type: Lecture  
Grading:  
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)  
EDCI 520: Assessment of Language Learners. 3 credits.  
Examines innovative approaches to assessing language learners. Topics include identification, placement, monitoring of student progress, development of authentic performance-based measures, design of portfolios, application of measurement concepts, analysis of assessment instruments, and linking assessments to instruction. Fieldwork hours are required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.  
Registration Restrictions:  
Required Prerequisites: EDCI 519^B, 519^XS, 560^B or 560^XS.  
*B- Requires minimum grade of B-.  
*XS Requires minimum grade of XS.  
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.  
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.  
Students in a Non-Degree Undergraduate degree may not enroll.  
Schedule Type: Lecture  
Grading:  
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 544: Curriculum and Methods of Teaching in Elementary Education. 3 credits.  
Introduction to general methods of teaching in elementary schools focusing on planning, teaching strategies, management, assessment, and differentiation. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit. Equivalent to ELED 544.  
Recommended Prerequisite: Admission to the Elementary Education graduate program; must be taken in programmatic sequence.  
Registration Restrictions:  
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.  
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.  
Students in a Non-Degree Undergraduate degree may not enroll.  
Schedule Type: Lecture  
Grading:  
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)  
EDCI 545: Assessment and Differentiation. 3 credits.  
Provides a research-based introduction to differentiated instruction for children in grades PK-6. Emphasis on the assessment of learners and differentiation of instruction to meet the needs of all learners. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit. Equivalent to ELED 545.  
Recommended Prerequisite: Admission into the Elementary Education graduate program, must be taken in programmatic sequence.  
Registration Restrictions:  
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.  
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.  
Students in a Non-Degree Undergraduate degree may not enroll.  
Schedule Type: Lecture  
Grading:  
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)  
EDCI 552: Mathematics Methods for the Elementary Classroom. 1-3 credits.  
Introduces methods for teaching all children topics in arithmetic, geometry, algebra, probability, and statistics in elementary grades. Focuses on using manipulatives and technologies to explore mathematics and solve problems. Notes: Requires field experience in public schools. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May be repeated within the degree for a maximum 3 credits. Equivalent to ELED 552.  
Recommended Prerequisite: Admission to the Elementary Education licensure program.  
Registration Restrictions:  
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.
Students in a Non-Degree Undergraduate degree may not enroll.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 555: Literacy Teaching and Learning in Diverse Elementary Classrooms I. 3 credits.
Provides research-based introduction to literacy teaching and learning for younger children. Emphasizes language development; reading and writing processes; emergent literacy, culture, families, and literacy; and literacy integration in the curriculum. Notes: School-based field experience required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit. Equivalent to ELED 555.

Recommended Prerequisite: Admission to the Elementary Education licensure program.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 556: Literacy Teaching and Learning in Diverse Elementary Classrooms II. 3 credits.
Provides research-based introduction to literacy teaching and learning for older children. Emphasizes language development; reading and writing processes; emergent literacy, culture, families, and literacy; and literacy integration in the curriculum. Notes: School-based field experience required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May be repeated within the degree for a maximum 3 credits. Equivalent to ELED 556.

Recommended Prerequisite: Admission to the Elementary Education Licensure program.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 557: Science Methods for the Elementary Classroom. 1-3 credits.
Develops skills and abilities in science teaching methods, applications of technology, safety practices, and creation of integrated science curricula. Examines science teaching based on contemporary theory, practice, and standards. Notes: Requires field experience in public schools. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May be repeated within the degree for a maximum 3 credits. Equivalent to ELED 557.

Recommended Prerequisite: Admission to the Elementary Education licensure program.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 558: Methods of Teaching Social Studies and Integrating Fine Arts in the Elementary Classroom. 3 credits.
Focuses on the design and delivery of standards-based integrated curriculum centered on the social sciences. Includes integration of fine arts and examines the central role of the arts in learning. Notes: School-based field experience required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May be repeated within the degree for a maximum 3 credits. Equivalent to ELED 558.

Recommended Prerequisite: Admission into Elementary Education graduate program; must be taken in programmatic sequence.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a major in Curriculum and Instruction.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.
**EDCI 557: Integrating Technology in PreK-6.** 3 credits.
Studies the development and integration of technology in the elementary education curriculum including the use of technology to address the learning needs of diverse students. Notes: School-based field experience required. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the Elementary Education licensure program.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a major in Curriculum and Instruction.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may **not** enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 559: Research and Assessment in Elementary Education.** 3 credits.
Provides teacher candidates an understanding of research paradigms utilizing systematic evidence to improve practice and further skills in assessment of learning outcomes. Emphasizes linking research and practice, making instructional decisions based on systematically collected data. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit. Equivalent to ELED 559.

**Recommended Prerequisite:** Admission into Elementary Education graduate program; capstone course for degree must be taken last in programmatic sequence.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may **not** enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 560: Methods of Teaching in Foreign/World Languages.** 3 credits.
Covers approaches, theories, and methods of teaching foreign and second languages, with practical application to classroom. Students demonstrate teaching strategies, develop lesson and unit-planning skills, and evaluate curricula and materials. Notes: Requires field experience in schools. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**

**Required Prerequisites:** EDCI 516 B, 516 XS, SPAN 502 B or 502 XS.

⋆ May be taken concurrently.

B- Requires minimum grade of B-.

XS Requires minimum grade of XS.

Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may **not** enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 580: Human Development and Learning.** 3 credits.
Examines overarching principles and theories of human growth and development. Explores the various domains of development — physical, cognitive, language, social/emotional, and moral — through the major theories of educational psychology. Explores how students learn and are motivated to learn. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may **not** enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 581: Understanding Culturally and Linguistically Diverse Learners.** 3 credits.
Examines the ways that race, ethnicity, language, religion, socioeconomic status, gender, sexual orientation, and ability intersect to affect educational experiences for culturally and linguistically diverse (CLD) learners of all ages. Invites educators to deepen understanding of culture and explore their own cultural identities with implications for equitable pedagogical practices with CLD learners. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may **not** enroll.
Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 582: Foundations in Language and Literacy. 3 credits.
Focuses on the relationship of language to reading and the connection between language structure and learning to read in English. Examines theories of language acquisition and the complexity of language development and the reading process for ESL/EFL/EAL students. Explores key factors that influence and enhance English language learning and development. Introduces literacy instruction and literacy assessment for ESL/EFL/EAL learners, and explores sociocultural perspectives on literacy. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 583: Research and Practice with Bi-Multilingual Learners. 3 credits.
Examines first and second language acquisition theories and sociopolitical contexts of research around the development of bilingualism past and present. Studies bilingual/multilingual learners’ cultures and languages through asset-based perspectives and addresses implications for pedagogical practices that promote bi-multilingualism and biliteracy. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 585: TESOL Methodology. 3 credits.
Examines approaches, methods, and techniques for teaching culturally and linguistically diverse ESL/EFL/EAL learners, as well as resources available in the field. Demonstrates and critically analyzes teaching approaches based on second language acquisition research, including teaching language through content. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

Schedule Type: Lecture

Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 586: Assessment in English Language Teaching. 3 credits.
Examines innovative approaches to assessing ESL/EFL/EAL learners. Focuses on topics such as identification, placement, monitoring of student progress, development of authentic performance-based measures, design of portfolios, application of measurement concepts, analysis of assessment instruments, and linking assessment to instruction. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

Registration Restrictions:
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.
Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 587: Content Literacy in English Language Teaching.** 3 credits.
Focuses on research-based instructional strategies for integrating development of ESL/EFL/EAL learners’ academic language and literacy skills with learning of content concepts across grade levels and disciplinary areas. Emphasizes sociocultural practices that leverage ESL/EFL/EAL learners’ social, cultural, linguistic, and knowledge capitals to strengthen academic achievement in content classrooms and discipline-specific fields. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 588: Consultation and Collaboration in Educational Settings.** 3 credits.
Focuses on ways in which education professionals can collaborate in serving EAL/EFL/ESL students. Explores methods for co-planning and co-teaching as well as ways for sharing responsibilities for instruction and assessment. Examines ways for managing difficult professional interactions and how to implement collaborative and inclusive models of education. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a concentration in TESOL PK-Adult Non-Licensure.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 597: Special Topics in Education.** 1-6 credits.
Provides advanced study on selected topic or emerging issue in American or international education. Notes: May be repeated for credit with GSE permission. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May be repeated within the degree.

**Specialized Designation:** Topic Varies

**Recommended Prerequisite:** Admission to program in GSE.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a major in ASTL-Alternative Education, ASTL-Early Childhood Educ, Gifted Child Education, ASTL - History, ASTL-Instructional Technology, ASTL - Literacy/Reading, ASTL - Mathematics, ASTL-NBPTS Preparation Core, ASTL - Science or Curriculum and Instruction.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

**600 Level Courses**

**EDCI 600: Workshop in Education.** 1-6 credits.
Offers full-time workshops and weekend seminars on selected topics in education and education tour seminars. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**EDCI 621: Introduction to Gifted and Talented Learners.** 3 credits.
Examines nature and needs of gifted and talented learners by exploring their varied characteristics. Analyzes the role of culture, language, income, dis/ability, and ethnicity in the manifestation and identification of gifts and talents. Prepares teachers to examine issues in gifted education, and recognize and advocate for underrepresented student groups in gifted programs. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 622: Curriculum and Instructional Strategies for Gifted Learners.** 3 credits.
Develops personal and professional rationale for differentiating instruction in mixed-ability classrooms. Explores the principles of effective differentiation and translates those principles to classroom actions. Expands knowledge and skills with assessment data and strategies to plan and implement differentiated instruction for diverse gifted learners. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 623: Supporting the Social Emotional Needs of Gifted Learners.** 3 credits.
Provides a framework to examine the social and emotional development of gifted learners. Offers exploration of research-informed strategies related to the affective guidance of gifted students, including instructional environment considerations. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 624: Advanced Assessment and Evaluation of Gifted Learners.** 3 credits.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.
Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 625: Contemporary Issues and Trends in Gifted Education.** 3 credits. Focuses on research, trends, issues, legislation, and litigation concerning gifted and talented children. Provides professionals in gifted education and related fields with knowledge and skills to serve as advocates for gifted-child education. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** EDCI 621, 622, 623, and 624.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.


Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 626: Action Research in Gifted Education.** 3 credits. Opportunity to identify and investigate school-based problem and apply inquiry, writing, and research skills to relevant issue or concern in gifted education. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.


Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 627: Advanced Practicum in Gifted Education.** 3 credits. Intensive supervised clinical experiences for one semester in accredited elementary or secondary school. Students supervised in setting that includes scheduled observations and seminar experiences. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** EDCI 621, 622, 623, and 624.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.


Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Internship

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 630: Supporting English Learners in PK-12 Schools.** 3 credits. Provides new knowledge for classroom teachers who wish to know more about second language acquisition and how to effectively serve English Learners in their classrooms and schools. Examines research in first and second language acquisition, bilingualism, and includes teachers' application of new knowledge for culturally responsive curriculum development and student assessment. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 644: Mathematics Learning and Assessment (K-8).** 3 credits. Introduces students to learning theories and associated assessment practices specific to mathematics education. Intended for mathematics specialists and teachers interested in problems of learning and assessment across K-8 settings in mathematics education. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the MEd in Education Leadership, Mathematics Education Leadership concentration.
**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a major in Curriculum and Instruction or Education Leadership.

Enrollment is limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 645: Curriculum Development in Mathematics Education. 3 credits.
Analysis, design, and evaluation of school mathematics curricula. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the Mathematics Education Leadership Masters Degree Program or permission of the instructor.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to students with a major in Curriculum and Instruction or Education Leadership.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 646: Mathematics Education Leadership for School Change. 3 credits.
Surveys current literature and large-scale studies in mathematics education. Engages students in research, study, and discussion of factors that affect teaching and learning of mathematics in school settings. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the Mathematics Education Leadership Masters Degree Program or permission of the instructor.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 660: Integrated STEM Teaching. 3 credits.
Provides an interdisciplinary approach to integrating science, technology, engineering, and mathematics (STEM) into teaching practice across all disciplines. Explores aspects of STEM education through literature, recent national reports, discussion, and practice. Involves participation in problem-based and project-based learning activities, inquiry learning, while using technology to gain and display information. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 663: Research in STEM Teaching. 3 credits.
Investigates the research and methodologies involved in teaching and learning across the science, technology, engineering, and mathematics (STEM) disciplines. Focuses on the role of the educator in engaging as an inquirer in their educational setting. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 666: Research in Mathematics Teaching. 3 credits.
Explores curricula, current issues, and research literature in elementary school mathematics. Emphasizes development of different styles of teaching. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 670: Advancing Equity in STEM Education.** 3 credits.
Examines current research on advancing equity in STEM teaching and learning across disciplines and grade levels. Incorporates multiple perspectives to consider systemic and structural challenges in STEM education. Positions educators as advocates and agents of change for more equitable STEM teaching and learning. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 671: Innovations in STEM Teaching.** 3 credits.
Examines current topics and technologies in STEM education. Focuses on incorporating emerging methods and topics in K-12 STEM teaching and learning. Explores opportunities to innovate STEM in schools and communities Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 684: Advanced Methods of Teaching Foreign/Second Languages in PK-12 Schools.** 3 credits.
Blends theoretical knowledge and practical application. Provides advanced study of second language pedagogy and teaching trends. Topics include multiple learning styles, alternative forms and assessment, and teaching diverse populations. Notes: Requires school-based field experience. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Required Prerequisites: (EDCI 520B or 520XS) and (EDCI 560B or 560XS).

* May be taken concurrently.
B- Requires minimum grade of B-.
XS Requires minimum grade of XS.

Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Enrollment is limited to Graduate, Non-Degree or Undergraduate level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Seminar

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 702: Internship in Mathematics Education.** 3 credits.
Offers practical experiences and professional challenges for mathematics leaders in authentic educational settings. Activities emphasize school-based and classroom based research and leadership. Develops the skills and abilities of the mathematics leaders to analyze classroom practice, investigate teaching and disseminate information about mathematics education in professional development settings for teachers. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Registration Restrictions:**
Enrollment is limited to students with a major in Curriculum and Instruction or Education Leadership.

Enrollment is limited to Graduate or Non-Degree level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Internship

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 776: Consultation and Collaboration in Diverse K-12 Settings.** 3 credits.
Focuses on ways in which practicing education professionals collaborate in serving diverse learners and their families. Explores methods for co-planning and co-teaching in the general education classroom and ways for sharing responsibilities for instruction and assessment. Includes ways for dealing with difficult interactions are part of understanding how to implement collaborative and inclusive models of education for diverse learners. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Corequisite:** Completion of all other program requirements EDCI 777

**Registration Restrictions:**
Required Prerequisites: EDCI 792, 793 or 794.

Enrollment is limited to Graduate or Non-Degree level students.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Seminar

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)
EDCI 777: Research to Practice. 3 credits.
Provides culminating experience that synthesizes and applies essential elements of teaching culturally & linguistically diverse and exceptional learners in international contexts. Emphasizes teacher as change agent through critical inquiry into practice. Promotes collaboration among teachers and school professionals to advance achievement of diverse learners. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Recommended Prerequisite: Completion of all other program requirements
Recommended Corequisite: EDCI 776
Registration Restrictions:
Required Prerequisites: EDCI 792, 793 or 794.
Enrollment is limited to Graduate or Non-Degree level students.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Lecture
Grading:
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)
EDCI 790: Internship in Education. 1-6 credits.
Intensive, supervised clinical experience for full semester in accredited school. Students must register for appropriate section. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May be repeated within the term for a maximum 6 credits. Equivalent to ELED 790, SEED 792, SEED 793, SEED 794, SEED 795.
Specialized Designation: Topic Varies
Recommended Prerequisite: EDUC 522, EDUC 672, two methods classes in content area; passing Praxis II and VCLA, completing all endorsements.
Recommended Corequisite: EDCI 791.
Registration Restrictions:
Enrollment is limited to Graduate level students.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Internship
Grading:
This course is graded on the Satisfactory/No Credit scale. (http://catalog.gmu.edu/policies/academic/grading/)
EDCI 791: Internship Seminar in Secondary Teaching. 2 credits.
Focuses on critical reflection regarding effects of teacher actions on others; develops skills as a reflective practitioner; presents research-based rationales for instructional decision-making. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit. Equivalent to SEED 791.
Recommended Prerequisite: Admission to the professional semester.
Recommended Corequisite: EDCI 790.
Registration Restrictions:
Enrollment is limited to Graduate or Non-Degree level students.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Seminar
Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)
EDCI 792: Internship in Education: PK-6 International Elementary Education. 6 credits.
Provides intensive, supervised clinical experience for a full semester in an accredited school. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Recommended Prerequisite: Completion of all licensure tests and endorsement requirements.
Registration Restrictions:
Required Prerequisites: (EDRD 515B or 515XS) and (EDUC 511B or 511XS) and (EDCI 512B or 512XS) and (EDUC 513B or 513XS) and (EDUC 514B or 514XS) and (EDCI 516B or 516XS) and (EDUC 520B or 520XS). B- Requires minimum grade of B-.
XS Requires minimum grade of XS.
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Internship
Grading:
This course is graded on the Satisfactory/No Credit scale. (http://catalog.gmu.edu/policies/academic/grading/)
EDCI 793: Internship in Education: PK-12 ESL/ESOL Education. 6 credits.
Provides intensive, supervised clinical experience for full semester in accredited school. Students must register for appropriate section. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Recommended Prerequisite: Completion of all licensure tests and endorsement requirements.
Registration Restrictions:
Required Prerequisites: (EDRD 515B or 515XS) and (EDUC 511B or 511XS) and (EDCI 512B or 512XS) and (EDUC 513B or 513XS) and (EDUC 514B or 514XS) and (EDCI 516B or 516XS) and (EDUC 520B or 520XS). B- Requires minimum grade of B-.
XS Requires minimum grade of XS.
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Internship
Grading:
This course is graded on the Satisfactory/No Credit scale. (http://catalog.gmu.edu/policies/academic/grading/)
EDCI 794: Internship in Education: PK-12 Foreign/World Language Education. 6 credits.
Provides intensive, supervised clinical experience for a full semester in an accredited school. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Recommended Prerequisite: Completion of all licensure tests and endorsement requirements.
Registration Restrictions:
Required Prerequisites: (EDCI 516B or 516XS) and (EDCI 520B or 520XS) and (EDCI 560B or 560XS) and (EDCI 684B or 684XS) and (EDRD 620B or 620XS) and (EDUC 511B or 511XS) and (EDUC 537B or 537XS).
B- Requires minimum grade of B-.
XS Requires minimum grade of XS.
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Internship
Grading: This course is graded on the Satisfactory/No Credit scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 797: Advanced Topics in Education. 1-6 credits.
Advanced study of selected topics in education for students preparing for doctoral studies or who have been admitted to the PhD program in education. Notes: May be repeated for credit with CEHD approval. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Specialized Designation: Topic Varies
Registration Restrictions:
Enrollment limited to Graduate or Non-Degree level students.
Students in a Non-Degree Undergraduate degree may not enroll.
Schedule Type: Lecture
Grading: This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

800 Level Courses
EDCI 810: Foundations of Science Education Research. 3 credits.
Explores and analyzes the range of research designs currently utilized by science education researchers. Develops an understanding of the assumptions and frameworks of different types of science education inquiry through an examination of ways of knowing. Examines historical trends that have taken place in science education. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Recommended Prerequisite: Permission of instructor.
Recommended Corequisite: EDUC 800.
Registration Restrictions:
Enrollment limited to students with a concentration in Science Education Research.
Enrollment limited to students in the E1-PHD-EDUC program.
Enrollment is limited to Graduate level students.
Schedule Type: Lecture
Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 811: Current Trends in Science Education Research. 3 credits.
Provides an in-depth examination and analysis of literature and research in science education. Examines theoretical foundations of research studies in science education, discusses methodologies of research, critique research, and examines trends in emerging science education research. Includes presentations by science education researchers as well as opportunities for graduate students to explore research ideas with colleagues within the class. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Recommended Prerequisite: EDCI 810.
Registration Restrictions:
Enrollment limited to students in the E1-PHD-EDUC program.
Enrollment is limited to Graduate level students.
Schedule Type: Lecture
Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 813: Focused Science Education Research. 3 credits.
Provides an opportunity for students to gain hands-on experience designing and conducting a research study in science education that leads to publication and/or conference presentations. The scholarship embodied in student development to this point in the doctoral program will lead students to work with a science education faculty member of their choice to development and seek to answer a research question of interest. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.
Recommended Prerequisite: EDRS 810, EDRS 811, EDRS 827.
Registration Restrictions:
Students cannot enroll who have a concentration in Science Education Research.
Enrollment limited to students in the E1-PHD-EDUC program.
Enrollment is limited to Graduate level students.
Schedule Type: Internship
Grading:
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)

EDCI 855: Mathematics Education Research on Teaching and Learning. 3 credits.
Surveys most current research literature in mathematics education. Engages students in research, study, and discussion of mathematics education research on teaching and learning in school settings. Builds on students’ educational and professional experiences to ensure students are well versed in research that has influenced mathematics education.
Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the Mathematics Education Leadership Ph.D. program.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 856: Mathematics Education Curriculum Design and Evaluation.** 3 credits.
Engages in research, analysis, design, and evaluation of school mathematics curriculum from various methodologies and theoretical approaches. Examines how mathematics education and mathematics curriculum is culturally, historically, and politically situated. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the Mathematics Education Leadership PhD program.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 857: Preparation and Professional Development of Mathematics Teachers.** 3 credits.
Engages students in the study of the attributes of effective professional development in mathematics education. Develops expertise in designing and teaching mathematics methods courses, and creating and providing professional development experiences for practicing teachers. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the Mathematics Education Leadership PhD program.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 858: Mathematics Education Research Design and Evaluation.** 3 credits.
Examines methods of research appropriate for mathematics education. Develops knowledge of the scope and evolution of research methodologies from a range of perspectives. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May not be repeated for credit.

**Recommended Prerequisite:** Admission to the Mathematics Education Leadership PhD program.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.

**Schedule Type:** Lecture

**Grading:**
This course is graded on the Graduate Special scale. (http://catalog.gmu.edu/policies/academic/grading/)

**EDCI 859: Current Issues in Mathematics and STEM Education Research.** 3 credits.
This introduces contemporary topics in mathematics education research. Students learn about current issues in research design and topics of interest in mathematics teaching, learning, policy and practice. They apply this knowledge to develop pilot studies. Offered by School of Education (http://catalog.gmu.edu/colleges-schools/education-human-development/school-education/). May be repeated within the degree for a maximum 6 credits.

**Registration Restrictions:**
Enrollment limited to students with a class of Advanced to Candidacy or Graduate.

Students in a Non-Degree Undergraduate degree may not enroll.

**Schedule Type:** Seminar

**Grading:**
This course is graded on the Graduate Regular scale. (http://catalog.gmu.edu/policies/academic/grading/)