**Eastern Secondary Mathematics Certification Program Status**

**Required Courses for Secondary Mathematics Certification Program at Eastern**

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| **Prior to Fall 2017** | **Fall 2017 and After** |
| **Secondary Mathematics Certification requires a total of 40 mathematics credits:**  **(All math majors took the same courses except MAT 372)**  MAT 230 Discrete Structures (3 credits)  MAT 243 Calculus I with Technology (4 credits)  MAT 244 Calculus II with Technology (4 credits)  MAT 310 Applied Linear Algebra (3 credits)  MAT 315 Applied Probability and Statistics (4 credits)  MAT 340 Calculus III (4 credits)  MAT 372 Advanced Mathematics for High School Teaching (3 credits)  MAT 380 Geometry (3 credits)  MAT 400 Abstract Algebra (3 credits)  MAT 420 Real Analysis I (3 credits)  MAT 421 Real Analysis II (3 credits)  CSC 210 Computer Science and Programming I (3 credits)  **Elective**  One mathematics course numbered over 300 | **Secondary Mathematics Certification requires a total of 45 mathematics credits:**  **(Bachelor of Arts with Math Major and Concentration in Mathematics for Teaching)**  MAT 230 Discrete Structures (3 credits)  MAT 243 Calculus I with Technology (4 credits)  MAT 244 Calculus II with Technology (4 credits)  MAT 310 Applied Linear Algebra (3 credits)  MAT 315 Applied Probability and Statistics (4 credits)  MAT 320 Number Theory (3 credits)  MAT 3XX History of Mathematics (3 credits)  MAT 340 Calculus III (4 credits)  MAT 372 Advanced Mathematics for High School Teaching (3 credits)  MAT 380 Geometry (4 credits)  MAT 400 Abstract Algebra (3 credits)  MAT 420 Real Analysis I (4 credits)  **Elective**  One mathematics course numbered over 300 |

After our last review by the NCTM NCATE SPA, the Mathematical Sciences Department has developed a new Bachelor of Arts with mathematics major and concentration in mathematics for teaching. The new program has been already approved by the department (see required courses above). In the new program, two additional mathematics courses, MAT 320 Number Theory and MAT 3XX History of Mathematics, have been added. MAT 421 Real Analysis II has been removed but a credit has been increased in MAT 421 Real Analysis I. Furthermore, a credit has been added to Geometry to better address transformational and non-Euclidean geometry. Each course in this concentration has been aligned with the 2012 NCTM CAEP elements (standards and indicators). Both the Mathematical Sciences and Education departments have collaborated for more than a year to develop this program. We believe that this new mathematics major with concentration in teaching better prepares our candidates for teaching mathematics in secondary schools.

The curriculum process will be completed in May 2017 and candidates will begin to enroll in this concentration in Fall 2017. The current candidates will be allowed to transfer to this concentration.

**Assessments for Secondary Mathematics Certification Program at Eastern**

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| **Required Assessments** | **Prior to Fall 2015** | **Fall 2015 and After** |
| 1. Praxis II | 10061 or 5161 (Must pass for certification) | 5161 (Must pass for certification) |
| 1. Course Grades (Math) | Not used | This a new assessment. Each candidate in the secondary mathematics certification program must take all courses in the mathematics for teaching concentration and receive a grade of “C” or higher in each course.  **Effective date and data availability Fall 2017. The course grades for the existing courses are currently available on Banner and TK20.** |
| 1. Unit Plan | Rubric language generallyaligned with the 2012 NCTM CAEP standards and indicators | Rubric language specifically aligned with the 2012 NCTM CAEP standards and indicators  **Effective date and data availability Fall 2015** |
| 1. Student Teaching | Part A rubric. NCTM CAEP standards and indicators aligned with the general rubric | Part A rubric and a newly added Part B rubric that perfectly aligns with the 2012 NCTM CAEP standards and indicators  **Effective date and data availability Spring 2016** |
| 1. Impact Portfolio | Part A rubric. NCTM CAEP standards and indicators aligned with the general rubric | Part A rubric and a newly added Part B rubric that perfectly aligns with the 2012 NCTM CAEP standards and indicators  **Effective date and data availability Spring 2016** |
| 1. Advanced Math Portfolio | Rubric aligned with the NCTM CAEP Content standards | Rubric specifically aligned with the NCTM CAEP Content and Mathematical Practice standards and Indicators  **Effective date and data availability Spring 2016** |
| 1. Clinical Report | Rubric generally aligned with the NCTM CAEP standards and Indicators | Rubric specifically aligned with the NCTM CAEP standards and Indicators  **Effective date and data availability Fall 2015** |

**The data collection for these assessments began in Fall 2015 (see data on TK20).**

**Graduate Certification Program**

Most of the candidates who are enrolled in Eastern’s graduate secondary certification program in mathematics are native Eastern students. They complete the same mathematics requirements (secondary certification tack). A small proportion of candidates enrolled in our graduate certification program are graduates of other accredited universities and colleges. While we accept qualifying candidates from other universities/colleges, we make sure that they have taken mathematics courses that align with the 2012 NCTM CAEP standards. The Connecticut State Department of Education (CSDE) regulations allow candidates to certify in secondary mathematics if the candidates have taken at least 30 credits in mathematics including a course in calculus. However, Eastern maintains a much rigorous mathematics content courses for all graduate candidates. They must have successfully completed courses in discrete structures, calculus I and II, linear algebra, probability and statistics, geometry, and advanced mathematics for high school teaching. They must receive a grade of “C” or higher in each of these courses. The graduate advisor and graduate certification candidates have to complete the advisement sheet (provided on the next page) for mathematics content courses while making their Plan of Study. If any of the mathematics courses in the advisement sheet are not on their transcripts, they are required to take these courses during their graduate certification program at Eastern. The candidates are not recommended for certification without taking these courses.

At Eastern the assessment requirements are the same for undergraduate and graduate certification candidates.

Advisement Sheet for Secondary Mathematics Teacher Certification Graduate

**(Required courses aligned with the 2012 NCTM CAEP Standards)**

**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Grade** | **Required Courses** | Aligned with NCTM CAEP 2012 Standards | **Transfer Course Number** |
|  | **MAT 230**: Discrete Structures | A.6. Discrete Mathematics |  |
|  | **MAT 243:** Calculus I with Technology | A.5. Calculus |  |
|  | **MAT 244:** Calculus II with Technology | A.5. Calculus |  |
|  | **MAT 310:** Applied Linear Algebra | A.2. Algebra |  |
|  | **MAT 315:** Applied Probability and Statistics | A.4. Statistics and Probability |  |
|  | **MAT 372:** Advanced Mathematics for High School Teaching | All Content: A.1, A.2, A.3, A.4, A.5, A.6 |  |
|  | **MAT 380:** Geometry | A.3 Geometry and Trigonometry |  |

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