

B.S. in Secondary Education

Mathematics Endorsement Course Checklist

Catalog Year 2023-2024

Pedagogical Knowledge & Pedagogical Content Knowledge Requirements**Courses Required for Teacher Education Admission:** Grade of "C" or higher required in each course.

Requirement	Course	Course Title	Credits	Pre/Co-Requisites/Notes	Semester Offered
<input type="checkbox"/>	EDUC 200 ¹	Foundations of Education in the United States	3		FA/SP/SU
<input type="checkbox"/>	PSYC 160 ¹	Life Span Human Development	3	C5SD	FA/SP/SU
<input type="checkbox"/>	WRTC 103	Rhetorical Reading and Writing	3	C1W	FA/SP/SU

Secondary Education Major Coursework: Grades of "B-" or higher required in all courses unless otherwise indicated.

Requirement	Course	Course Title	Credits	Pre/Co-Requisites/Notes	Semester Offered
<input type="checkbox"/>	EDUC 200 ¹	Foundations of Education in the United States	3	Required for Teacher Education admission; grade of "C" or higher	FA/SP/SU
<input type="checkbox"/>	EDUC 310 ²	Teaching in a Diverse Society	3		FA/SP/SU
<input type="checkbox"/>	EXED 200 ¹	Foundations of Exceptional Education	3		FA/SP/SU
<input type="checkbox"/>	MSSE 370 ³	General Instr. Methods for Grades 6-12	3	P: EDUC 310	FA/SP
<input type="checkbox"/> Middle School Teaching	MSSE 413 ³⁴	Mathematics Teaching Methods, Gr. 6-8	3	C: MSSE 415	SP
<input type="checkbox"/> Methods and Practicum	MSSE 415 ³⁴	Content Area Field Exp. in Middle Schools	3	C: MSSE 413	FA/SP
<input type="checkbox"/> VDOE: Content Area Lit.	LED 440 ³⁴	Disciplinary Literacy in Secondary Education	3	P: EDUC 310	FA/SP
<input type="checkbox"/> VDOE: Assessment	MSSE 425 ³⁴	Assessment in Middle and Secondary Educ.	3		SP
<input type="checkbox"/> High School Teaching	MSSE 443 ³⁴	Mathematics Teaching Methods, Gr. 9-12	3	C: MSSE 448	FA
<input type="checkbox"/> Methods and Practicum	MSSE 448 ³⁴	Mathematics Field Placement, Grades 9-12	1	C: MSSE 443	FA
<input type="checkbox"/>	MSSE 420 ³⁴	Differentiation for Adolescents	3		FA
<input type="checkbox"/> VDOE: Behav. Manag.	MSSE 403 ³⁴	Behavior & Classroom Management...	3	take in spring senior year	FA/SP
<input type="checkbox"/>	MSSE 450 ³⁴⁵	Internship Seminar	2	C: MSSE 475	SP
<input type="checkbox"/> Student Teaching	MSSE 475 ³⁴⁵	Internship in Middle and Secondary	8	C: MSSE 450	SP
<input type="checkbox"/> Pedagogy	MSSE 455	Special Topics in Pedag. Content Knowl.	3	Take with student teaching	SP

¹ Secondary Education major declared & approved² Application to the Teacher Education Program required³ Admission to the Teacher Education Program required⁴ Completion of MSSE 370⁵ Passing score on Praxis Subject Assessment**College of Education** Department of Middle, Secondary, and Mathematics EducationMemorial Hall, 395 S. High Street, Room 3200, MSC 6912 Harrisonburg, VA 22807 | (540) 568-6486 | <https://www.jmu.edu/coe/msme/>

This document is provided as an advising resource only. Official curriculum requirements are listed in the JMU Undergraduate Catalog and the JMU Graduate Catalog. In the case of discrepancies, the University Catalog is the official curriculum students must follow. This document was reviewed by the Middle, Secondary, and Mathematics Education Academic Unit Head on June 1, 2023.

Mandatory Tasks:

- Be admitted to the Teacher Education Program before you enroll in MSSE 370.
- Attend a Student Teaching Information Meeting in the Fall of your junior year and apply to Student Teaching by October 31 of your junior year.
- Attempt your Praxis Subject Assessment no later than March 1 of your junior year and pass it no later than August 15 before your senior year. You will not be permitted to student teach until you have a passing score on your Praxis Subject Assessment.

B.S. Degree Requirements (6 credits)

For guidance on courses to satisfy your degree requirements: https://www.jmu.edu/registrar/ba_and_bs_degree_courses.shtml.

Requirement	Course	Course Name	Credits	Pre/Co-Requisites/Notes	Semester Offered
<input type="checkbox"/> Scientific Literacy			3	any	FA/SP/SU
<input type="checkbox"/> Quantitative Reasoning	MATH 236	Calculus II	4	P: "C-" or higher in MATH 235	FA/SP/SU

Math Content Knowledge Licensure Requirements...

...as they fit with the JMU Mathematics major.

Requirement	Course	Course Title	Credits	Pre/Co-Requisites/Notes	Semester Offered
Math Major Core					
<input type="checkbox"/> VDOE: Calculus	MATH 236	Calculus II	4	P: "C-" or higher in MATH 235	FA/SP
<input type="checkbox"/> VDOE: Calculus	MATH 237	Calculus III	4	P: "C-" or higher in MATH 236	FA/SP
<input type="checkbox"/> VDOE: Discrete Math.	MATH 245	Discrete Mathematics	3	P/C: MATH 236	FA/SP
<input type="checkbox"/> VDOE: Computer Sci.	MATH 248	Computers and Numerical Algorithms	4	P/C: MATH 236 & inst. permission	FA/SP
<input type="checkbox"/> VDOE: Linear Algebra & Functions	MATH 238	Linear Algebra with Differential Equations	4	P: MATH 236; substitutes for MATH 300 and MATH 336	FA/SP
<input type="checkbox"/> VDOE: Calculus	MATH 410	Advanced Calculus I	3	P: MATH 245 and MATH 300 or inst. permission	FA/SP
<input type="checkbox"/> VDOE: Abstract Algebra	MATH 430	Abstract Algebra I	3	P: MATH 245 and MATH 300 or inst. permission	FA/SP
<input type="checkbox"/> VDOE: Prob. & Stat.	MATH 318 <i>or</i>	Introduction to Probability and Statistics	4	318 P: MATH 236	FA/SP
	MATH 229 <i>and</i> MATH 329	Introduction to Applied Statistics Using... Introduction to Probability and...	3 3	Recommend MATH 318	
Math Elective Courses – 12 credits					
<input type="checkbox"/> VDOE: Number Systems & Theory	MATH 310 <i>or</i> MATH 315	Elementary Number Theory <i>or</i>	3	310 and 315 P: MATH 245 or instructor permission	Offered every third semester
		Real Number Systems	3		
<input type="checkbox"/> VDOE: Math History	MATH 415	History of Mathematics	3	P: MATH 245 or inst. permission	SP
<input type="checkbox"/> SEED: Pedagogy VDOE: Pedagogy	MATH 470	Connections in Mathematics	3	P/C: MATH 318 or MATH 329, and MATH 410, MATH 430, & MATH 475	FA
<input type="checkbox"/> VDOE: Geometry	MATH 475	Fundamental Concepts of Geometry	3	P: MATH 245 or inst. permission	FA

The MSME Department recommends students meet with their Mathematics major advisor each semester to review program sequencing and determine possible substitute courses to meet program and licensure requirements.

General Education Requirements

Be sure to follow the General Education course suggestions listed below for maximum overlap of the General Education Program with your Secondary Education major and Math major.

Requirement	Course	Course Title	Credits	Pre/Co-Requisites/Notes	Semester Offered
MADISON FOUNDATIONS					
<input type="checkbox"/>	Critical Thinking (C1CT)		3		FA/SP/SU
<input type="checkbox"/>	Human Communication (C1HC)		3	Choose any option from the General Education Planner.	FA/SP/SU
<input type="checkbox"/>	Writing	WRTC 103 Rhetorical Reading and Writing	3	Must earn a C or higher.	FA/SP/SU
ARTS AND HUMANITIES					
<input type="checkbox"/>	Human Questions and Contexts (C2HQC)		3		FA/SP/SU
<input type="checkbox"/>	Visual and Performing Arts (C2VPA)		3	Choose any option from the General Education Planner.	FA/SP/SU
<input type="checkbox"/>	Literature (C2L)		3		FA/SP/SU
THE NATURAL WORLD					
<input type="checkbox"/>	Quantitative Reasoning (C3QR)	MATH 231 <i>or</i> MATH 235	Calculus with Functions I <i>or</i> Calculus I	3 4	P: ALEKS FA/SP/SU
<input type="checkbox"/>	Physical Principles (C3PP)		3	Choose any option from the General Education Planner.	FA/SP/SU
<input type="checkbox"/>	Natural Systems (C3NS)		3		FA/SP/SU
<input type="checkbox"/>	Lab Experience (C3Lab)		1	Either ISCI 104 (1 credit hour) OR a co-requisite or included lab exp. with a C3PP or C3NS course.	FA/SP/SU
AMERICAN AND GLOBAL PERSPECTIVES					
<input type="checkbox"/>	The American Experience (C4AE)		4	Choose any option from the General Education Planner.	FA/SP/SU
<input type="checkbox"/>	The Global Experience		3		FA/SP/SU
SOCIOCULTURAL AND WELLNESS AREA					
<input type="checkbox"/>	Wellness Domain (C5W)		3	Choose any option from the General Education Planner.	FA/SP/SU
<input type="checkbox"/>	Sociocultural Domain (C5SD)	PSYC 160	Life Span Human Development	3	Must earn a C or higher. FA/SP/SU