

College of Education

Department of Middle, Secondary, and Mathematics Education

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SEED Major/Math Checklist

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 American Education	3		FA/SP/SU
<input type="checkbox"/>	PSYC 160 ¹	Life Span Human Development	3	C5SD	FA/SP/SU
<input type="checkbox"/>	WRTC 103	Critical 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 American Education	3	Required for Teacher Education admission; grade of "C" or higher	FA/SP/SU
<input type="checkbox"/>	EDUC 310	Teaching in a Diverse Society	3	1,2	FA/SP/SU
<input type="checkbox"/>	EXED 200	Social Foundations of Exceptionalities	3	1	FA/SP/SU
<input type="checkbox"/>	MSSE 240	Foundations of General Education, 6-12	3	1,3	FA/SP
<input type="checkbox"/> VDOE: Assessment	MSSE 425	Assessment in Middle & Secondary Educ.	3	1,3,4	SP
<input type="checkbox"/> Middle School Teaching	MSSE 470M	Mathematics Teaching Methods, Gr. 6-8	3	1,3,4; C: MSSE 471M; LED 440	FA/SP
<input type="checkbox"/> Methods and Practicum	MSSE 471M	Field Experience in Middle School Math	1	1,3,4; C: MSSE 470M; LED 440	FA/SP
<input type="checkbox"/>	LED 440	Literacy-Based Learning in Second. Educ.	3	1,3,4	FA/SP
<input type="checkbox"/> High School Teaching	MSSE 480M	Mathematics Teaching Methods, Gr. 9-12	3	1,3,4; C: MSSE 481M	FA
<input type="checkbox"/> Methods and Practicum	MSSE 481M	Field Experience in High School Math	1	1,3,4; C: MSSE 480M	FA
<input type="checkbox"/> VDOE: Behav. Manag.	MSSE 403	Classroom Management for Adolescents	3	1,3,4	FA/SP
<input type="checkbox"/>	MSSE 460	Differentiation for Adolescents	3	1,3,4	FA
<input type="checkbox"/>	MSSE 450	Internship Seminar	2	1,3,4	FA/SP
<input type="checkbox"/> Student Teaching	MSSE 475	Internship in Middle and Secondary	8	1,3,4	FA/SP
<input type="checkbox"/> Pedagogy	MSSE 489M	Special Topics in Math Pedag. Cont. Knowl.	3	1,2,4 C: MSSE 450, MSSE 475	SP

¹Secondary Education major declared & approved

²Application to Teacher Education required

³Admission to Teacher Education required

⁴Completion of MSSE 240

B.S. Degree Requirements (6 credits)

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 & Numerical Algorithms	4	P/C: MATH 236 & inst. permission	FA/SP
<input type="checkbox"/> VDOE: Linear Algebra & Functions	MATH 238	Linear Algebra with Differential Eq.	4	P: MATH 236	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	Introduction to Probability and Statistics	4	318 P: MATH 236	FA/SP
Math Elective Courses – 12 credits					
<input type="checkbox"/> VDOE: Calculus	MATH 235	Calculus I	4	P: MPE; or MATH 231 + MATH 232	FA/SP/SU
<input type="checkbox"/> VDOE: Number Systems & Theory	MATH 310 or	Elementary Theory of Numbers or	3	310 P: MATH 245 or inst. permis.	310: FA21, FA22
	MATH 315	Real Number Systems	3	315 P: MATH 245 or inst. permis.	315: SP21, FA22
<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

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 and Math majors.

Requirement	Course	Course Title	Credits	Pre/Co-Requisites/Notes	Semester Offered
CLUSTER ONE: SKILLS FOR THE 21ST CENTURY					
<input type="checkbox"/>	Critical Thinking (C1CT)		3	Choose any option from the General Education Planner.	FA/SP/SU
<input type="checkbox"/>	Human Communication (C1HC)		3		
<input type="checkbox"/>	Writing	WRTC 103 Critical Reading and Writing	3	Must earn a C or higher.	FA/SP/SU
CLUSTER TWO: ARTS AND HUMANITIES					
<input type="checkbox"/>	Human Questions and Contexts (C2HQC)		3	Choose any option from the General Education Planner.	FA/SP/SU
<input type="checkbox"/>	Visual and Performing Arts (C2VPA)		3		
<input type="checkbox"/>	Literature (C2L)		3		FA/SP/SU
CLUSTER THREE: THE NATURAL WORLD					
<input type="checkbox"/>	Quantitative Reasoning (C3QR)	MATH 235 Calculus 1	4	P: MPE; or MATH 231 + MATH 232	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		
<input type="checkbox"/>	Lab Experience (C3Lab)		1	Either ISCI 104 (1 credit hour) OR a co-requisite or included lab experience with a C3PP or C3NS course.	FA/SP/SU
CLUSTER FOUR: SOCIAL AND CULTURAL PROCESSES					
<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		
CLUSTER FIVE: INDIVIDUALS IN THE HUMAN COMMUNITY					
<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