



Secondary Endorsement STEM 5-8

Students majoring in Secondary Education must complete the prescribed pre-education requirements, the requirements for the Secondary Education major, and at least one content endorsement. This endorsement can be completed in addition to the student's first content endorsement in mathematics or science.

Students must earn a minimum 3.0 GPA in courses required for the major and each endorsement. The grade of B or above must be earned in designated education major pre-admission and major courses, and students must earn a grade of C or above in all other courses required for the major pre-admission courses, major, and each endorsement. Please see the university catalog for additional information.

After completing a 5-12 mathematics OR a 5-12 science endorsement, a STEM endorsement may be added.

Iowa Teaching Endorsement: #976

Requirements for the Endorsement: 32 – 41 credits

Students must complete the designated coursework in each of the categories (A, B, C, D).

Category A: Science – 12-15 credits

Essential Competencies-Outcome Iterations

Transfer courses do not receive outcome iterations

				IL	W	O	Q	GA	V
CHEM 107 or CHEM 111	Fundamentals of Organic and Biochemistry or General Chemistry I	4					x		
BIOL 101	General Biology I	4		x					
PHSC 101 or PHYS 131/241 and EDUC 408	Physical and Earth Science or General Physics I/Classical Physics I and STEM Teaching: Earth Science	4 or 4/5 and 3					x	x (241)	
OR									
A minimum of 12 credit hours of approved college level science coursework including content in Chemistry, Biology, Physics, and Earth Science		12							

Category B: Mathematics/Computer Science – 8-12 credits

Essential Competencies-Outcome Iterations

Transfer courses do not receive outcome iterations

				IL	W	O	Q	GA	V
MATH 231 and CPSC 155 or CPSC 241 or Approved CPSC course	Calculus with Analytic Geometry I and Programming Using Visual Basic or Computer Science I or Approved computer programming course	5 and 3 Or 3 or 3							
OR Take 9 credits from:									
MATH 121	College Algebra	3					x		
MATH 122	Trigonometry	3							
STAT 241	Principles of Statistics	4					x		
STAT 261	Applied Statistics	3					x	x	
Other approved math course									

ANY CHANGES/SUBSTITUTIONS MUST BE APPROVED BY THE GRAND VIEW UNIVERSITY EDUCATION DEPARTMENT CHAIR.

This information must be used in conjunction with the 2020-2021 Grand View University Catalog and does not reflect a student's official record of progress. Students are expected to use the Progress tool found on myView > GV Self Service when monitoring and planning coursework. Other available resources include: Course Planning Documents (found on myView under Academics) and the faculty and staff who work with academic requirements.

	And take:								
	CPSC 155 or CPSC 241 or Approved CPSC course	Programming Using Visual Basic or Computer Science I or Approved CPSC course	3						

Category C: Engineering – 3 credits

Essential Competencies-Outcome Iterations
****Transfer courses do not receive outcome iterations****

				IL	W	O	Q	GA	V
	EDUC 410	Engineering, Programming, and Design for Educators	3						

Category D: Methods – 7 credits

Essential Competencies-Outcome Iterations
****Transfer courses do not receive outcome iterations****

				IL	W	O	Q	GA	V
	EDUC 348	Secondary Science Teaching Methods	2						
	EDUC 349	Secondary Mathematics Teaching Methods	2						
	EDUC 411	The Nature of STEM	2						
	EDUC 451	Experiential STEM	1						

The STEM endorsement cannot be submitted as your first content endorsement for licensure. Please ensure that an appropriate first endorsement is also completed.

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