

# B.S. Mathematics

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The Bachelor of Science program in Mathematics is designed to prepare students to take positions in industry, to pursue graduate training, or to enter the teaching profession. It allows some flexibility in course work which necessitates close cooperation with a mathematics department advisor who should be selected early in the student's career.

Students must fulfill the university's General Education Requirements (a minimum of 36 credits--see the General Education Requirements (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/>) in the Academic Information section of this catalog).

## Mathematics Core

All bachelor degrees offered in the Department of Mathematics and Statistics have a common core consisting of the following six courses:

Code	Title	Credits
CS 1181	Computer Science and Programming I <sup>1</sup>	3
MATH 1170	Calculus I	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2240	Linear Algebra	3
MATH 3326	Elementary Analysis	3
Total Credits		21

<sup>1</sup> The two courses, ME 1165 Structured Programming and ME 2266 Symbolic Programming, may be substituted for CS 1181.

## Required Courses

Code	Title	Credits
Math Core (See above)		21
MATH 2287	Foundations of Mathematics	3
MATH 3360	Differential Equations	3
MATH 4407	Modern Algebra I	3
MATH 4423	Introduction to Real Analysis I	3
<b>Plus ONE of the following courses:</b>		3
MATH 3327	Vector Analysis	
MATH 3335	Elementary Number Theory	
MATH 3343	Modern Geometry I	
MATH 3352	Introduction to Probability	
MATH 3362	Introduction to Complex Variables	
<b>Plus 12 more credits of 4000-level mathematics coursework, which includes completing two of the following sequences:</b>		12
MATH 4407 & MATH 4408	Modern Algebra I and Modern Algebra II	
MATH 4423 & MATH 4424	Introduction to Real Analysis I and Introduction to Real Analysis II	
MATH 4441 & MATH 4442	Introduction to Numerical Analysis I and Introduction to Numerical Analysis II	
MATH 4450 & MATH 4451	Mathematical Statistics I and Mathematical Statistics II	