B.S. Applied Mathematics

The Bachelor of Science program in Applied Mathematics is designed to prepare students to take positions in industry or pursue graduate training. Students must fulfill the university's General Education Requirements (a minimum of 36 credits – see the General Education Requirements (https://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/) in the Academic Information section of this catalog).

Program Admissions Requirements

There are no program admission requirements for the BS Applied Mathematics.

General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MATH 1170		4
Objective 4		6
Objective 5		7
Objective 6		6
Students must fulfill Objective 7 or Objective 8		**3**
Objective 7 - CS 1181		
Objective 8		
Objective 9		3
Total Credits		**38**

Major Requirements

Code	Title	Credits
Mathematics Core		
CS 1181	Computer Science and Programming I (satisfies General Education Objective 7) [1]	3
MATH 1170	Calculus I (satisfies General Education Objective 3)	4
MATH 1175	Calculus II	4
MATH 2275	Calculus III	4
MATH 2240	Linear Algebra	3
MATH 3326	Elementary Analysis	3
Other Required Courses		
MATH 3310	Mathematical Modeling	3
MATH 3352	Introduction to Probability	3
MATH 3360	Differential Equations	3
MATH 4423	Introduction to Real Analysis I	3
MATH 4441	Introduction to Numerical Analysis I	3
Plus one of the following two courses:		**3**
MATH 4421	Advanced Engineering Mathematics I	
MATH 4465	Partial Differential Equations	
A student must take nine additional credits from the following list to complete the degree: [2]		**9**
MATH 3327	Vector Analysis	
MATH 3362	Introduction to Complex Variables	
MATH 4405	Numerical Linear Algebra	
MATH 4422	Advanced Engineering Mathematics II	
MATH 4424	Introduction to Real Analysis II	
MATH 4442	Introduction to Numerical Analysis II	
MATH 4450	Mathematical Statistics I	
MATH 4451	Mathematical Statistics II	
MATH 4463	Topics in Applied Mathematics	
Total Credits		**48**

Degree Totals

Code	Title	Credits
Program Admission Requirements		0
General Education		38
Major Requirements (Required General Education credits removed.)		41
Upper Division Free Electives		6
Free Electives		35
Total Credits		**120**

[1] Students may take both ME 1165 (https://coursecat.isu.edu/search/?P=ME%201165) Structured Programming and ME 2266 (https://coursecat.isu.edu/search/?P=ME%202266) Symbolic Programming instead of CS 1181 (https://coursecat.isu.edu/search/?P=CS%201181).

[2] With departmental approval, up to three of these credits may be completed by taking an appropriate course in this or another department.

ISU Degree Requirements (http://coursecat.isu.edu/undergraduate/degreerequirements/)

ISU General Education (http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/)

Major Academic Plan (MAP) (https://www.isu.edu/advising/maps/)