BACHELOR OF SCIENCE IN STATISTICS

Required Courses

Code	Title	Credit Hours
Applied Mathematics Requirements		**(29)**
MATH 100	Introduction to the Profession	3
MATH 151	Calculus I	5
MATH 152	Calculus II	5
MATH 230	Introduction to Discrete Math	3
MATH 251	Multivariate and Vector Calculus	4
MATH 332	Elementary Linear Algebra	3
MATH 350	Introduction to Computational Mathematics	3
MATH 435	Linear Optimization	3
Statistics Requirements		**(15)**
MATH 225	Introductory Statistics	3
MATH 446	Introduction to Time Series	3
MATH 475	Probability	3
MATH 476	Statistics	3
MATH 484	Regression	3
Applied Mathematics Electives		**(15)**
Select 15 credit hours from the following courses, or any other approved AMAT elective: [1]		15
MATH 252	Introduction to Differential Equations	4
MATH 380	Introduction to Mathematical Modeling	3
MATH 400	Real Analysis	3
MATH 481	Introduction to Stochastic Processes	3
MATH 483	Design and Analysis of Experiments	3
CS 422	Data Mining	3
Minor Requirement		**(15)**
Select five related courses from an area outside of applied mathematics, computational mathematics, or statistics		15
Computer Science Requirements		**(7-9)**
Select one of the following sequences:		4-6
CS 115 & CS 116	Object-Oriented Programming I and Object-Oriented Programming II	4
CS 104 & CS 201	Introduction to Computer Programming for Engineers and Accelerated Introduction to Computer Science	6
CS 105 & CS 201	Introduction to Computer Programming and Accelerated Introduction to Computer Science	6
CS 331	Data Structures and Algorithms	3
Natural Science and Engineering Requirements		**(10)**
See Illinois Tech Core Curriculum, section D		10
Humanities and Social Science Requirements		**(21)**
See Illinois Tech Core Curriculum, sections B and C		21
Interprofessional Projects (IPRO)		**(6)**
See Illinois Tech Core Curriculum, section E		6
Free Electives		**(8)**
Select eight credit hours		8

Minimum degree credits required: 126

[1] Applied mathematics/statistics electives are to be chosen after consultation with an academic adviser. Student goals, interests, and course availability should be determining factors in this selection process. Students can take CS 422 to replace one applied mathematics/statistics elective. CS 422 must be taken after CS 331, which is a required computer science course in this curriculum.

The following courses do not count toward the requirements for this degree: MATH 119, MATH 122, MATH 130, MATH 148, MATH 180, MATH 333, MATH 374, MATH 425, MATH 426, and MATH 474.

Bachelor of Science in Statistics Curriculum

			Year 1
Semester 1	**Credit Hours**	**Semester 2**	**Credit Hours**
MATH 100	3	MATH 152	5
MATH 151	5	MATH 230	3
MATH 225	3	Science Elective	4
Computer Science Course[1]	2	Computer Science Course[1]	2
Humanities 200-level Course	3	Social Sciences Elective	3
	16		**17**

			Year 2
Semester 1	**Credit Hours**	**Semester 2**	**Credit Hours**
MATH 251	4	MATH 435	3
MATH 332	3	Applied Mathematics/Statistics Elective[2]	3
CS 331	3	Minor Elective	3
Minor Elective	3	Science Elective	3
Humanities or Social Sciences Elective	3	Social Sciences Elective (300+)	3
	16		**15**

			Year 3
Semester 1	**Credit Hours**	**Semester 2**	**Credit Hours**
MATH 475	3	MATH 350	3
Applied Mathematics/Statistics Elective[2]	3	MATH 476	3
Minor Elective	3	Applied Mathematics/Statistics Elective[2]	3
Science Elective	3	IPRO Elective I	3
Humanities Elective (300+)	3	Social Sciences Elective (300+)	3
Free Elective	2		
	17		**15**

			Year 4
Semester 1	**Credit Hours**	**Semester 2**	**Credit Hours**
MATH 484	3	MATH 446	3
Applied Mathematics/Statistics Elective[2]	3	Applied Mathematics/Statistics Elective[2]	3
Minor Elective	3	Minor Elective	3
Humanities Elective (300+)	3	Free Elective	3
IPRO Elective II	3	Free Elective	3
	15		**15**

Total Credit Hours: 126

[1] Students must complete one of the following computer science sequences: CS 115 and CS 116, CS 104 and CS 201, or CS 105 and CS 201.

[2] Applied mathematics/statistics electives are to be chosen after consultation with an academic adviser. Student goals, interests, and course availability should be determining factors in this selection process. Students can take CS 422 to replace one applied mathematics/statistics elective. CS 422 must be taken after CS 331, which is a required computer science course in this curriculum. The following courses do not count toward the requirements for this degree: MATH 119, MATH 122, MATH 130, MATH 148, MATH 180, MATH 333, MATH 374, MATH 425, MATH 426, and MATH 474.