

# Mathematics and Statistics

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## Department Information

- **Department Web Site:**  
www.ndsu.edu/math/ (<http://www.ndsu.edu/math/>)
- **Credential Offered:**  
B.S.; B.A.
- **Official Program Curriculum:**  
[catalog.ndsu.edu/undergraduate/program-curriculum/mathematics-statistics/](http://catalog.ndsu.edu/undergraduate/program-curriculum/mathematics-statistics/) (<http://catalog.ndsu.edu/undergraduate/program-curriculum/mathematics-statistics/>)

## Pre-Actuarial Science Option

Actuarial Science is the study of the evaluation and measurement of risk. The Actuary Science option is a pre-professional program designed to provide the background needed to enter the field. Entrance into the profession is regulated under a system of examinations run by actuarial professional societies. The curriculum for this option is designed to prepare the student to pass several of these examinations.

The nature of the actuarial profession requires its practitioners to have a broad knowledge of finance, law, mathematics, management, and statistics. This option leads to a double major in Mathematics and Statistics with either a minor in Economics or additional courses in business. Students selecting this option are requested to visit with the actuarial advisers in both the Departments of Mathematics and Statistics early and often to confirm their progress and to inform themselves of changes in the examination curriculum.

## Sample Program Guide

**IMPORTANT DISCLAIMER:** A Sample Program Guide provides an unofficial guide of program requirements and should be used by prospective students who are considering attending NDSU in the future. It is NOT an official curriculum and should NOT be used by current NDSU students for official degree planning purposes. Note that the official curriculum used by current NDSU students can vary from the Sample Program Guide due to a variety of factors such as, but not limited to, start year, education goals, transfer credit, and course availability.

To ensure proper program completion, enrolled students should utilize Degree Map (<https://www.ndsu.edu/registrar/degreemap/>) and Schedule Planner (<https://www.ndsu.edu/onestop/degree-map-and-planning/>) in Campus Connection and consult regularly with their academic advisor to ensure requirements are being met.

### Math and Statistics

Freshman			
Fall	Credits	Spring	Credits
MATH 165 <sup>1</sup>		4 MATH 166	4
MATH 129		3 MATH 329	3
CSCI 160		4 STAT 330	3
ENGL 110 or 120 (based on placement)		3 CSCI 161	4
		COMM 110	3
		<b>14</b>	<b>17</b>
Sophomore			
Fall	Credits	Spring	Credits
MATH 265		4 MATH 266	3
MATH 270		3 MATH 346	3
STAT 461		3 Gen Ed Humanities/Fine Arts & Cultural Diversity	3
Gen Ed Social/Behavioral Science & Global Perspectives		3 Humanities or Social Science (additional college requirement)	3
Humanities or Social Science (additional college requirement)		3 STAT 400 Elective	3
		<b>16</b>	<b>15</b>

<b>Junior</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MATH 450		3 STAT 468	3
STAT 467		3 MATH 300-400 Elective	3
Gen Ed Humanities/Fine Arts		3 STAT 400 Electives	9
Gen Ed Social/Behavioral Science		3 Gen Ed Upper Level Writing	3
Elective		3	
		<b>15</b>	<b>18</b>
<b>Senior</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MATH 491		1 STAT 400 Electives	3
STAT 400 Electives		6 Electives	9
Gen Ed Science & Tech w/lab		4 STAT 462 (Capstone)	3
Gen Ed Science & Tech		3	
Gen Ed Wellness		2	
		<b>16</b>	<b>15</b>

**Total Credits: 126**

<sup>1</sup>  
Students who are not ready for Math 165 may need an additional semester to complete their degree.

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### Math and Statistics (Pre-Actuarial)

<b>Freshman</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MATH 165 <sup>1</sup>		4 MATH 166	4
MATH 129		3 MATH 329	3
STAT 330		3 COMM 110	3
ENGL 110 or 120 (based on placement)		3 CSCI 160	4
ECON 201		3 ECON 202	3
		<b>16</b>	<b>17</b>
<b>Sophomore</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MATH 265		4 MATH 266	3
MATH 270		3 MATH 346	3
STAT 461		3 Actuarial Elective (One of the following: CSCI 453, 454; ECON 341, 343, 410, 440, 456, 465, 470, 472, 476, 480, 481, 482; FIN 320, 410, 420, 450, 460)	3

CSCI 161	4	Stat 400 Elective	3
ACCT 200	3	ACCT 201	3
<b>17</b>		<b>15</b>	

<b>Junior</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
MATH 450		3 STAT 468	3
STAT 467		3 MATH 300-400 Elective	3
STAT 400 Elective		3 STAT 400 Elective	3
Upper Level Writing		3 Actuarial Elective (One of the following: CSCI 453, 454; ECON 341, 343, 410, 440, 456, 465, 470, 472, 476, 480, 481, 482; FIN 320, 410, 420, 450, 460)	3
Actuarial Elective (One of the following: CSCI 453, 454; ECON 341, 343, 410, 440, 456, 465, 470, 472, 476, 480, 481, 482; FIN 320, 410, 420, 450, 460)		3 Gen Ed Humanities/Fine Arts	3
<b>15</b>		<b>15</b>	

<b>Senior</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
STAT 400 Elective		3 STAT 476	1
Gen Ed Social/Behavioral Science		3 Gen Ed Science & Tech w/lab	4
Gen Ed Science & Tech		6 Gen Ed Humanities/Fine Arts & Cultural Diversity	6
		Gen Ed Wellness	2
		STAT 462 (Capstone)	3
<b>12</b>		<b>16</b>	

**Total Credits: 123**

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Students who are not ready for Math 165 may need an additional semester to complete their degree.