

Mathematics and Statistics

Department Information

- **Department Location:**
Minard Hall or Morrill Hall
- **Department Phone:**
701-231-8171
- **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/>)

Mathematics and Statistics Double Major

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

Please note this is a sample program guide and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Once admitted, students are encouraged to work with their assigned academic advisor on a regular basis to review degree progress.

Math and Statistics

| Freshman | | | |
|--|---------|--|-----------|
| Fall | Credits | Spring | Credits |
| MATH 165 | | 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 |
| | | 14 | 17 |
| Sophomore | | | |
| Fall | Credits | Spring | Credits |
| MATH 265 | | 4 MATH 266 | 3 |
| MATH 270 | | 3 MATH 346 | 3 |
| STAT 367 | | 3 STAT 368 | 3 |
| Gen Ed Social/Behavioral Science & Global Perspectives | | 6 Gen Ed Humanities/Fine Arts & Cultural Diversity | 6 |
| | | 16 | 15 |

| Junior | | | |
|----------------------------------|----------------|------------------------------|----------------|
| Fall | Credits | Spring | Credits |
| MATH 450 | | 3 MATH 300-400 Elective | 3 |
| STAT 461 | | 3 STAT 400 Electives | 9 |
| Gen Ed Humanities/Fine Arts | | 3 Gen Ed Upper Level Writing | 3 |
| Gen Ed Social/Behavioral Science | | 3 | |
| Elective | | 3 | |
| | | 15 | 15 |
| Senior | | | |
| Fall | Credits | Spring | Credits |
| 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 | |
| | | 16 | 15 |

Total Credits: 123

Sample Program Guide

Please note this is a sample program guide and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Once admitted, students are encouraged to work with their assigned academic advisor on a regular basis to review degree progress.

Math and Statistics (Pre-Actuarial)

| Freshman | | | |
|--------------------------------------|----------------|--|----------------|
| Fall | Credits | Spring | Credits |
| MATH 165 | | 4 MATH 166 | 4 |
| MATH 129 | | 3 MATH 329 | 3 |
| STAT 330 | | 3 COMM 110 | 3 |
| ACCT 200 | | 3 ACCT 201 | 3 |
| ENGL 110 or 120 (based on placement) | | 3 CSCI 160 | 4 |
| | | 16 | 17 |
| Sophomore | | | |
| Fall | Credits | Spring | Credits |
| 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 Gen Ed Social/Behavioral Science | 3 |
| | | Stat 400 Elective | 3 |
| | | 14 | 15 |

| Junior | | | |
|--|----------------|--|----------------|
| Fall | Credits | Spring | Credits |
| 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 |
| | | 15 | 15 |
| Senior | | | |
| Fall | Credits | Spring | Credits |
| STAT 400 Elective | | 3 STAT 476 | 1 |
| Gen Ed Social/Behavioral Science | | 6 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 |
| | | 15 | 16 |
| Total Credits: 123 | | | |