

# Statistics Minor

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## About

Pursuing a minor in statistics is a way for students who are not statistics majors to demonstrate expertise in statistics.

**Program:** [Mathematics and Statistics](#)

**Type:** Minor

## MINOR: Statistics (27 credits)

Students who plan to get a minor in statistics should declare their intention as early as possible. Students may consult statistics minor coordinator Dr. Yimin Zhang ([yimin.z@villanova.edu](mailto:yimin.z@villanova.edu)) at any time for information and advice. If all requirements for the minor are satisfied, then the certificate will be issued about two weeks after graduation. The minor will also appear on the student's transcript.

### *Program Notes:*

- Courses that fulfill minor requirements may be used to fulfill other requirements (i.e., primary major, core curriculum, minors, concentrations, or free electives).
- A student who is not a mathematics major may petition to have an upper-division course from their major count as one of the two statistics electives. The course must have substantial statistical content and must not substantially overlap with any of the other courses that the student is counting towards the minor.
- For mathematics majors, four courses may be counted towards both the mathematics major and the statistics minor: MAT 1500, 1505, 2500 and either STAT 4310 or STAT 5700. No other courses count towards both. Thus, obtaining the statistics minor requires taking four additional courses beyond those required for the mathematics major.
- For those students who pursue both the mathematics minor and the statistics minor, exactly four courses (no more) may be counted towards both minors simultaneously: MAT 1500, MAT 1505, MAT 2500, and STAT 4310. No other courses count towards both. Thus, obtaining the statistics minor requires taking four additional courses beyond those required for the mathematics minor.
- For students doing the Applied Quantitative Finance concentration, STAT 4310 can be replaced with an extra elective chosen from MAT 4600 and three-credit STAT courses numbered 3000 and above.

| <b>Course</b> | <b>Title</b>                           | <b>Credits</b> |
|---------------|--|----------------|
| MAT 1500      | Calculus I                             | 4              |
| MAT 1505      | Calculus II                            | 4              |
| MAT 2500      | Calculus III                           | 4              |
| STAT 4310     | Stat Methods                           | 3              |
| STAT 4315     | Applied Statistical Models             | 3              |
| STAT 5700     | Probability                            | 3              |
|               | Two Statistics Electives for the Minor | 6              |

# Category Descriptions

## Two Statistics Electives for the Minor

Credits: 6

Students take two courses for 6 cr from the options below.

- One course must be either MAT 4600 or a STAT course of 3000 or above (3 cr).
- One course must be from this list: BIO 3105, ECO 3137, ECE 3720, MGT 3170, PSY 2050, STAT 3000:9999, or any course with the STA attribute (3 cr).
- One of the two electives may be obtained by bundling one-credit and two-credit STAT courses (or approved MAT courses) numbered 3000 and above.