

Mathematics & Statistics Curriculum Guides

The following are only examples of four-year Mathematics degree programs and are subject to change without notice. Students should consult a Mathematics program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Mathematics Emphasis
- Statistics Emphasis

Mathematics

An example: Four year plan for **Mathematics Major with Mathematics Emphasis**

120 credits necessary to graduate.

Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
|--------------------|--------------------------------------|----------------|
| Freshman | | |
| Fall | | |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| First Year Seminar | | 3 |
| General Ed | | 3 |
| General Ed | | 3 |
| Elective | | 3 |
| | | Credits |
| | | 16 |
| Spring | | |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed | | 3 |
| General Ed | | 3 |
| Elective | | 3 |
| | | Credits |
| | | 17 |
| Sophomore | | |
| Fall | | |
| MATH 209 | Multivariate Calculus | 4 |
| General Ed | | 3 |
| General Ed | | 3 |
| Elective | | 3 |
| | | Credits |
| | | 13 |
| Spring | | |
| MATH 314 | Proofs in Number Theory and Topology | 3 |
| General Ed | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| | | Credits |
| | | 15 |
| Junior | | |
| Fall | | |
| MATH 305 | Ordinary Differential Equations | 4 |
| MATH 320 | Linear Algebra and Matrix Theory | 4 |
| General Ed | | 3 |
| Elective | | 3 |
| | | Credits |
| | | 14 |
| Spring | | |
| MATH 328 | Abstract Algebra | 3 |
| MATH 355 | Applied Mathematical Optimization | 3 |
| General Ed | | 3 |

| | | |
|---------------------------|-------------------------|------------|
| Elective | | 3 |
| Elective | | 3 |
| Credits | | 15 |
| Senior | | |
| Fall | | |
| MATH 323 | Analysis | 4 |
| Elective | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Credits | | 16 |
| Spring | | |
| MATH 385 | Foundations of Geometry | 3 |
| Math Upper Level Elective | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Credits | | 15 |
| Total Credits | | 121 |

Statistics

An example: Four year plan for **Mathematics Major with Statistics Emphasis**

120 credits necessary to graduate.

Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
|--------------------|--------------------------------------|-----------|
| Freshman | | |
| Fall | | |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| First Year Seminar | | 3 |
| General Ed | | 3 |
| General Ed | | 3 |
| General Ed | | 2 |
| Credits | | 15 |
| Spring | | |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed | | 3 |
| General Ed | | 3 |
| Elective | | 2 |
| Credits | | 16 |
| Sophomore | | |
| Fall | | |
| MATH 209 | Multivariate Calculus | 4 |
| MATH 320 | Linear Algebra and Matrix Theory | 4 |
| General Ed | | 3 |
| General Ed | | 3 |
| Credits | | 14 |
| Spring | | |
| MATH 314 | Proofs in Number Theory and Topology | 3 |
| General Ed | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Credits | | 15 |
| Junior | | |
| Fall | | |
| MATH 323 | Analysis | 4 |

| | | |
|--|---|------------|
| MATH 360 | Theory of Probability (if fall even; take a 3-credit elective otherwise) | 3 |
| General Ed | | 3 |
| General Ed | | 3 |
| Elective | | 3 |
| Credits | | 16 |
| Spring | | |
| MATH 355 | Applied Mathematical Optimization | 3 |
| MATH 361 | Mathematical Statistics (if spring odd; take a 3-credit elective otherwise) | 3 |
| General Ed | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Credits | | 15 |
| Senior | | |
| Fall | | |
| MATH 329 | Applied Regression Analysis | 4 |
| MATH 360 | Theory of Probability (if fall even and not already taken; take a 3-credit elective otherwise) | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Elective | | 3 |
| Credits | | 16 |
| Spring | | |
| MATH 361 | Mathematical Statistics (if spring odd and not already taken; take a 3-credit elective otherwise) | 3 |
| Math Upper-level Elective (MATH 430: Design of Experiments or MATH 431: Multivariate Statistical Analysis) | | 4 |
| Elective | | 3 |
| Elective | | 3 |
| Credits | | 13 |
| Total Credits | | 120 |