Calculus I & II are required if not already taken elsewhere

**By End of Year 2**
- 220 Discrete (F/S)
- 231 Multivariable (F/S)
- 232 Linear Algebra (F/S)
- 301 Analysis (F/S)
- 327 Algebra I: Group Theory (F/S)
- CS 150 (F/S)*

**By End of Year 3**
- Additional 300s and Electives

**By End of Year 4**
- Recommended: MATH 234 Differential Equations

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### Additional Statistical Modeling Minor

**By End of Year 2**
- 205 Stat. & Modeling
- 209 Data Comp. & Visual.

**By End of Year 3**
- 237 Bayesian Comp.

**By End of Year 4**
- 339 Prob. Mod. & Machine Learning

Recommended: CS 151 & CS 280

For more information, see Statistical Modeling Minor in the Course Catalog

(F) Offered Every Fall
(S) Offered Every Spring
*Recommended By End Of Year 2 If Possible
300 Level Courses

301, 327, and 335 offered every year. Other 300s generally offered in alternate years.

**300s without a 300 level prerequisite:**
- 302 Dynamical Systems
- 317 Number Theory
- 318 Cryptography
- 328 Computational Algebra
- 331 Linear Optimization
- 332 Nonlinear Optimization
- 335 Probability
- 342 Mathematics of Social Choice
- 350 Geometry
- 397 Seminar in Mathematical Modeling
- STAT 339 Probabilistic Modeling and Machine Learning

**300s with a 300 level prerequisite:**
- 329 Algebra II: Rings and Fields
- 340 Mathematical Logic
- 343 Combinatorics
- 353 Topology
- 356 Complex Analysis
- 357 Harmonic Analysis
- 358 Real Analysis
- STAT 336 Mathematical Statistics

Optional Areas of Emphasis within a Mathematics Major

**Preparation for Graduate Studies in Mathematics**
- Take as many additional 300s as possible.

**Operations Research & Industrial & Systems Engineering**
- 331 Linear Optimization, 332 Nonlinear Optimization, and 335 Probability.
- Recommended: CS 151 and CS 280.

**Connections to Computer Science**
- Courses among MATH 318, 331, 332, 397, and STAT 339.
- CS 151 and 280.

**Preparation for Actuarial Work**
- MATH 335 to prepare for Exam P.
- Recommended: ECON 206 and STAT 336.

**Connections to Economics**
- MATH 332, 335, and 342.