Statistics Major Requirements (2019-2020 Flow chart)

**A grade of “C” or above is required for Calculus 1, 2 & 3**

- **COMP SCI 200 (3), 220 (4), 300 (3), 320 (4), 400 (3), 412 (3)**
  - Computer Programming

- **MATH 221 (5) Calculus 1**
- **MATH 222 (4) Calculus 2**
- **MATH 234 (4) Calculus 3**

- **STAT 302*, 301(3), 324(3), 371(3), 240(4)**
  - Intro Stats

- **MATH 320 (3), 340 (3), 341 (3)**
  - Linear Algebra

- **STAT 333 (3) or 340 (4)**
  - Statistical Model 1

- **STAT 424 (3)**
  - Statistical Model 2

- **MATH 320 (3), 340 (3), 341 (3)**

- **STAT 309 (3), STAT 311(3), MATH 431(3), MATH 531 (3)**
  - Probability

- **STAT 310 (3)**
  - Inference

- **Stat CORE Elective (3)**
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- **Stat CORE Elective (3)**
- **Stat CORE/DOMAIN Elective (3)**
- **Stat CORE/DOMAIN Elective (3)**

**Stat CORE Electives**
- 304 (1): R for Statistics 2
- 305 (1): R for Statistics 3
- 327 (1): Learning a Statistical Language
- 349 (3): Introduction to Time Series
- 351 (3): Introductory Nonparametric Statistics
- 360 (1-3): Topics in Statistics Study Abroad
- 405 (3): Data Science Computing Project
- 411 (3): An Introduction to Sample Survey Theory & Methods
- 421 (3): Applied Categorical Data Analysis
- 433 (3): Data Science with R
- 436 (3): Statistical Data Visualization
- 443 (3): Classification & Regression Trees
- 451 (3): Marching Learning & Statistical Pattern Classification
- 453 (3): Intro to Deep Learning & Generative Models
- 456 (3): Applied Multivariate Analysis
- 461 (3): Financial Statistics
- 471 (3): Intro to Computational Statistics
- 479 (1-3): Special Topics in Statistics

**Stat CORE Electives**
- 575 (3): Statistical Methods for Spatial Data
- 632 (3): Intro to Stochastic Processes
- 641 (3): Statistical Methods for Clinical Trials
- 642 (3): Statistical Methods for Epidemiology
- 679 (1-3): Special Topics in Statistics

**DOMAIN Electives** (up to 6 credits)*
- ACT SCI (3): Loss Models II
- ACT SCI 654 (2-3): Regression & Time Series
- CS/ECE/ME 532 (3): Matrix Methods in ML
- CS/ECE 561(3) Probability and Information Theory in ML
- ECON 570 (3): Fundamentals of Data Analytics for Economists
- GEN BUS 656(2-3): Machine Learning for Business Analytics
- GEOG 560 (3): Advanced Quantitative Methods
- I SY E 521(3); ML in Action for Industrial Engineers
- MATH 635(3); An Intro to Brownian Motion & Stochastic Calculus
- SOC 362(4): Statistics for Sociologists 3
- SOC 375 (3): Intro to Mathematical Sociology
- STAT/CS/MATH 475 (3): Intro to Combinatorics
- STAT/CS/ ISY E/MATH 525(3): Linear Optimization

* See The Guide for full list of Electives

Revised May 2023 (updating additional electives)