Statistics (BS)

**Major** Academic Director: **Rebecca Nugent** (BH 232C); Academic Advisor: **Paige Houser** (BH 132A)

Statistics consists of two intertwined threads of inquiry: Statistical Theory and Data Analysis. The former uses probability theory to build and analyze mathematical models of data in order to devise methods for making effective predictions and decisions in the face of uncertainty. The latter involves techniques for extracting insights from complicated data, designs for accurate measurement and comparison, and methods for checking the validity of theoretical assumptions. Statistical Theory informs Data Analysis and vice versa. The Statistics Department curriculum follows both of these threads and helps students develop the complementary skills required. Tracks in the major are: Neuroscience and Mathematical Statistics. This is a suggested schedule for the first 2 years for a Primary Major. It is also available as an Additional Major and a Minor. The remainder of the Major and GenEd can be completed in the junior and senior year.

### 1st semester (49 units)
- **36-201, Statistical Reasoning**
- Complete 1:
  - 76-101, Interpretation & Argument
  - 79-104, Global Histories
  - Freshman Seminar
- 99-101 or 99-102, C@CM
- **21-120, Diff. & Integral Calculus**
- **xx-xxx, Elective**
- **xx-xxx, Elective**

### 2nd semester (45 units)
- Complete 2:
  - 76-101, Interpretation & Argument
  - 79-104, Global Histories
  - Freshman Seminar
  - 21-256, Multivariate Analysis
  - 36-202, Statistical Methods
  - **xx-xxx, Elective**

### 3rd semester (45 units)
- **36-225, Intro. Probability Theory**
- **36-350, Statistical Computing**
- **xx-xxx, Elective**
- **xx-xxx, Elective**
- **xx-xxx, Elective**

### 4th semester (45 units)
- **36-226, Intro. Stat. Inference**
- **21-240 or 21-241 or 21-242**
- **xx-xxx, Elective**
- **xx-xxx, Elective**
- **xx-xxx, Elective**

*Acceptable equivalents for 36-201 are: 36-207, 36-247 or 36-220
**Elective: This space can be used for a pre-requisite course, another GenEd course, major course, or for a course you are interested in.
***If required to start with 21-111, complete 21-112, then 21-256. Note: 21-256 should be taken before 36-225 which is offered in the fall semesters.
****Other Intermediate Data Analysis courses are: 36-208 or 36-309 (fall)
+These courses are prerequisites for 36-401. A grade of "C" or higher is needed in 36-225, 36-226, and 36-401 to be able to take the next course in the sequence.

Academic Advisory Center (6/1/2016)