# Description of the Minor

The Minor in Biometry and Statistics is designed to provide students with basic knowledge of statistical techniques and the mathematics necessary to understand and use them. To obtain a Minor students must take the required courses and three elective courses from the list below. Students may petition to have other courses that are not listed as electives, but the elective courses cannot be used to also fulfill requirements of their major. Courses taken at other institutions may be credited towards the minor, but a minimum of three elective courses must be taken at Cornell.

## Required Courses

- **BTRY 3010:** Biological Statistics I  
  *or*  **BTRY 6010:** Statistical Methods I  
  *or equivalent*
- **BTRY 3020:** Biological Statistics II  
  *or*  **BTRY 6020:** Statistical Methods II
- **BTRY 3080:** Probability Models and Inference
- **MATH 1110, Calculus I**
- **MATH 1120 or 1220 or 1910, Calculus II**
- **MATH 2210 or MATH 2310:** Linear Algebra

## Elective Courses

- **BTRY 3100 / ILRST 3100 / STSCI 3100:** Statistical Sampling
- **BTRY 3520 / STSCI 3520:** Statistical Computing
- **BTRY 4030:** Linear Models with Matrices
- **BTRY 4090:** Theory of Statistics
- **BTRY 4100 / ILRST 4100 / STSCI 4100:** Multivariate Analysis
- **BTRY 4381:** Bioinformatics Programming
- **BTRY 4820:** Statistical Genomics
- **BTRY 4830:** Quantitative Genomics and Genetics
- **BTRY 4840 / CS 4775:** Computational Genetics and Genomics
- **BTRY 4110 / ILRST 4110 / STSCI 4110:** Categorical Data
- **BTRY 4140 / ILRST 4140 / STSCI 4140:** Applied Design
- **BTRY 6790 / CS 6782:** Probabilistic Graphical Models
- **ILRST 6140:** Structural Equations w/ Latent Variables
- **ILRST 6190:** Special Topics in Social Statistics
- **MATH 1920, 2130 or 2220:** Multivariable Calculus
- **NTRES 6700:** Spatial Statistics
- **ORIE 3510 and 4520:** Stochastic Processes
- **ORIE 4740 / STSCI 4740:** Statistical Data Mining I
- **STSCI 4550 / ILRST 4550, ORIE 5550:** Applied Time Series Analysis

## Applying for the Minor

2. Obtain the application for the minor from the main office of the Department of BSCB in 1198 Comstock Hall or download it from the website. Complete the personal information section and as much course information as possible.
3. Submit the form to the BSCB main office. Retain a copy for your records and give a copy to your faculty advisor in your major.
4. Within two weeks, you will be notified which BSCB faculty member will serve as the supervising faculty advisor for your Biometry and Statistics Minor. You must meet with your BSCB advisor before the beginning of the second semester of your junior year.
5. Plan a course of study to complete the Biometry and Statistics Minor requirements. Select required courses and an elective course that best suit your interests. If you need assistance in planning, contact your supervising BSCB faculty advisor. Address any questions to your supervising BSCB faculty advisor, the Undergraduate Program Assistant, or the Director of Undergraduate Studies.
6. Keeping track of progress in meeting requirements is the student’s responsibility. If your course choices change, update your form at the BSCB main office. If the change creates any doubt about meeting the requirements of the minor, confirm its acceptability with your supervising BSCB faculty advisor. Students must earn a grade of C or better in each course used for the minor.
7. Bring your Application to Graduate to the BSCB main office by the end of the first week of your final semester. Upon verification that the required courses have been completed successfully, a designated representative of the Department of BSCB will sign your Application to Graduate, certifying the minor.

**Contact Information:** Director of Undergraduate Studies; Program Assistant: biom-stat@cornell.edu
CORNELL UNIVERSITY
Department of Biological Statistics and Computational Biology
Application for a Minor in Biometry and Statistics

Student’s Name: _________________________ Major: _______________________

Local Address:  ________________________________________________________________

Permanent Home Address: _______________________________________________________

Local/Cell Phone: ________________________ Email: _______________________

Major Advisor’s Name: ______________________________ Department:  __________________

Signature: ___________________________ Date: ________________________

**Required Courses**

- □ BTRY 3010, Biological Statistics I
  - Grade: ____________________________
  - Semester: _______________________

  *or* □ BTRY 6010, Statistical Methods I

- □ BTRY 3020, Biological Statistics II
  - Grade: ____________________________
  - Semester: _______________________

  *or* □ BTRY 6020, Statistical Methods II

- □ BTRY 3080, Probability Models and Inference
  - Grade: ____________________________
  - Semester: _______________________

- □ MATH 1110, Calculus I
  - Grade: ____________________________
  - Semester: _______________________

- □ MATH □ 1120 or □ 1220 or □ 1910, Calculus II
  - Grade: ____________________________
  - Semester: _______________________

- □ MATH □ 2210 or □ MATH 2310, Linear Algebra
  - Grade: ____________________________
  - Semester: _______________________

**Elective Courses:**

______________________________________________

______________________________________________

______________________________________________

Total Credit Hours: __________

*Only courses for which a grade of C- or better is received will count toward the minor in Biometry and Statistics. Courses taken with the S/U option will not count toward the minor.

BSCB Faculty Advisor Signature: _________________________ Date: _____________

Signature indicates that the student’s BSCB faculty advisor has approved this course of study.

To receive credit for a Minor in Biometry and Statistics:
1. Submit a copy of this form to the BSCB Undergraduate Program Assistant in 1198 Comstock Hall. Retain a copy for your records and give your major advisor a copy for your file.
2. Complete the required courses, meeting with your BSCB faculty advisor as required.
3. By the end of the first week of your final semester, bring your Application to Graduate to the BSCB main office, 1198 Comstock Hall. Upon verification of completion of the required courses, a designated representative of the Department of BSCB will sign the form to certify the minor.