

Statistics and Analytics Master of Science

Biological Analytics Concentration Course Requirements

Required Core Areas (12-13 hours)

Statistical Methods Core (One of the following)

- ◇ STAT 50133 Statistical Methods
- ◇ ESRM 64003 Educational Statistics and Data Processing
- ◇ SOCI 50103 Advanced Social Research
- ◇ AGST 50203 Principles of Experimentation

Regression Analysis Core (One of the following)

- ◇ STAT 53133 Regression Analysis
- ◇ ESRM 64203 Multiple Regression Techniques for Education
- ◇ INEG 53903 Applied Regression Analysis in Engineering
- ◇ SOCI 53103 Applied Data Analysis
- ◇ AGST 57103 Applied Regression Analysis for Agricultural Sciences

Multivariate Analysis Core (One of the following)

- ◇ STAT 53533 Methods of Multivariate Analysis
- ◇ ESRM 64503 Applied Multivariate Statistics
- ◇ AGST 5040V (3 hours) Special Topics: Applied Multivariate Analysis

Experimental Design Core (One of the following)

- ◇ STAT 53733 Experimental Design
- ◇ ESRM 64103 Experimental Design in Education
- ◇ INEG 53303 Design of Industrial Experiments
- ◇ AGST 50104 Experimental Design

Required Concentration Courses (9 hours)

- BIOL 5800V (3 hours) Scientific Computing for Biologists (typically Fall)
- BIOL 51503 Programming for Biologists (typically Spring)
- ISYS 57203 Advanced Multivariate Analysis

Electives (9 hours)

Chosen by the student in consultation with advisor. Suggestions include: CSCE 50703 Data Mining, CSCE 52003 Advanced Database Management Systems, CSCE 52103 Bioinformatics, CSCE 53203 Computer Security, CSCE 56503 Network Security, GEOS 45503 Introduction to Raster GIS, GEOS 55503 Spatial Analysis Using Arc-GIS, GEOS 55903 Introduction to Geodatabases, ISYS 55003 Decision Support and Analytics, ISYS 58303 Data Management Systems, STAT 51103 Statistical Inference, STAT 53303 Analysis of Categorical Responses, STAT 53403 Stochastic Processes, STAT 53803 Time Series Analysis, and STAT 54103 Spatial Statistics.

Comprehensive Examination or Thesis

Typically, in the 4th semester either a comprehensive examination or thesis defense is scheduled in consultation with the advising committee. In the case of a thesis, 6 hours of STAN 600V would replace 2 elective courses.