

**STATISTICS MAJOR REQUIREMENTS: ADVISEMENT FORM  
BACHELOR OF SCIENCE DEGREE  
APPLIED STATISTICS TRACK**

Name:

UMBC username or ID:

**NOTE:** A grade of C or better is required in courses to fulfill major requirements.

**I Core Requirements**

		Semester/Year	Grade
MATH 151	Calculus and Analytic Geometry I	_____	_____
MATH 152	Calculus and Analytic Geometry II	_____	_____
MATH 221	Introduction to Linear Algebra	_____	_____
MATH 251	Multivariable Calculus	_____	_____
STAT 350	Statistics with Applications in the Biological Sciences <b>OR</b>		
STAT 351	Applied Statistics for Business and Economics <b>OR</b>		
STAT 355	Introduction to Probability and Statistics for Scientists and Engineers <b>OR</b>		
CMPE 320		_____	_____
STAT 433	Statistical Computing	_____	_____
STAT 451	Introduction to Probability Theory	_____	_____
STAT 453	Introduction to Mathematical Statistics	_____	_____
STAT 454	Applied Statistics	_____	_____

**II Upper Level Mathematics/Statistics Electives**

Students must successfully complete NINE elective courses, with at least FOUR courses in Statistics. Electives are to be chosen with departmental approval. See below for suggested electives.

		Semester/Year	Grade
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____

**Suggested Electives in Mathematics and Statistics:**

- MATH 301 Introduction to Mathematical Analysis I
- MATH 302 Introduction to Mathematical Analysis II
- MATH 341 Computational Methods

MATH 381 Linear Methods in Operations Research  
 MATH 430 Matrix Analysis  
 MATH 441 Introduction to Numerical Analysis  
 MATH 452 Introduction to Stochastic Processes  
  
 STAT 405 Survey Sampling  
 STAT 414 Environmental Statistics  
 STAT 417 Introduction to Time Series Data Analysis  
 STAT 418 Applied Multivariate Methods  
 STAT 419 Introduction to Biostatistics  
 STAT 455 Design of Experiments and Quality Control

**Suggested Electives in Other Fields:**

CMSC 201 Computer Science I for Majors **OR**  
 CMSC 202 Computer Science II for Majors  
 CMSC 331 Principles of Programming Languages  
 CMSC 341 Data Structures  
  
 ECON 421 Introduction to Econometrics  
 ECON 422 Topics in Econometrics  
 ECON 423 Economic Forecasting  
  
 IS 410 Introduction to Database Program Development  
 IS 420 Advanced Database Project  
 IS 427 Artificial Intelligence  
 IS 444 Total Quality Management for the Information Systems Department  
  
 POLI 400 Qualitative Research Methods in Political Science  
  
 PSYC 331 Experimental Psychology-Design and Analysis I  
 PSYC 332 Experimental Psychology-Design and Analysis II  
  
 SOCY 419 Qualitative Methods in Social Research

**III Proficiency in English:** All Statistics majors must demonstrate their proficiency in English by passing ENGL 393 (Technical Writing) and by passing a course in Speech (SPCH).