Math Major with Statistics Track Requirements  
Catalog Year: 2013-14  
Degree: Bachelor of Science  
Credit Hours: 46+  

“PR” indicates a pre-requisite. “CO” indicates a co-requisite.  

Courses within this major may also satisfy general education requirements. Please consult http://registrar.cofc.edu/general-edu for more information.  

Required Courses  
- MATH 120 Introduction to Calculus (4) PR: Placement or C or better in MATH 111  
- MATH 220 Calculus II (4) PR: MATH 120 or HONS 115  
- MATH 203 Linear Algebra (3) PR: MATH 220  
- MATH 221 Calculus III (4) PR: MATH 220  

Select one of the following tracks (Actuarial, Applied, Pure, Statistics or Teacher Education):  

Statistics Track  
- MATH 295 Introduction to Abstract Mathematics (3) PR: MATH 203 or MATH 221  
- MATH 311 Advanced Calculus I (3) PR: MATH 221 and MATH 295  
- MATH 250 Statistical Methods I (3) PR: MATH 111 or MATH 120 or instructor permission  
- MATH 350 Statistical Methods II (3) PR: MATH 120 and MATH 250  
- MATH 430 Mathematical Statistics I (3) PR: MATH 221  
- MATH 431 Mathematical Statistics II (3) PR: MATH 430  

Select one of the following course/lab pairings:  
- ___________ ___________ lab  

CSCI 220 Computer Programming I (3) PR: CSCI 120 or CSCI 180 or CSCI 210 or MATH 111 or department permission  
CSCI 220L Computer Programming I Lab (1) PR or CO: CSCI 220  

OR  
MATH 245 Numerical Methods and Mathematical Computing (3) PR: MATH 203 or MATH 220 or instructor permission; CO: MATH 246  
MATH 246 Mathematical Computing and Programming Lab (1) PR: MATH 220 or instructor permission  

Select 9 additional credit hours from the following:  
- ___________ ___________ ___________  

CSCI 334 Data Mining (3) PR: CSCI 221 and MATH 207 and MATH 250  
MATH 440 Statistical Learning I (3) PR: MATH 203 and MATH 220 and MATH 350  
MATH 441 Statistical Learning II (3) PR: MATH 440  
MATH 451 Linear Programming and Optimization (3) PR: MATH 203 and MATH 221, and CSCI 220 or MATH 245, or instructor permission  
MATH 452 Operations Research (3) PR: MATH 203 and MATH 530, and CSCI 220 or MATH 245  
MATH 455 Bayesian Statistical Methods (3) PR: MATH 430  
MATH 475* Statistical Consulting (3) PR: MATH 350 and one of MATH 440 or MATH 441 or MATH 451 or MATH 452 or CSCI 334
Note: *MATH 475 Statistical Consulting is the recommended capstone for this track.