

BS Mathematical Sciences Statistics Major

The Bachelor's degree in Mathematical Sciences emphasizes a deeper study of Mathematics and Statistics. The Statistics major is designed to teach students how to collect, analyze, and interpret data. Graduating students will have the necessary job skills for employment in a variety of fields. However, the courses are rigorous so that students are well prepared to pursue a graduate degree in statistics.

Course Availability: This is when courses are typically offered and is subject to change:

F (Fall), S (Spring), SS (Summer) F = Fall, S = Spring, SS = Summer

Common Prerequisites (19-21 credits)

Complete all of the following with a grade of "C" or better (12 credits)

Course	Description	Pre-requisites	Term offered	Units
MAC 2311	Calculus I	Grade of "C" or higher in MAC 1147 or MAC 1140 + MAC 1114 (or placement score without prior coursework)	F, S, SS	4
MAC 2312	Calculus II	MAC 2311	F, S, SS	4
MAC 2313	Multivariable Calculus	MAC 2312	F, S, SS	4

Complete one of the following with a grade of "C" or better (3-4 credits):

COP 2210	Intro to Programming	MAC 1140 or MAC 1147 or MAC 2233 or MAC 2311	F, S, SS	4
COP 2250	Java Programming		F, S, SS	3
COP 2047	Python Programming I		F, S, SS	3

Completion of one lecture with corresponding labs (4-5 credits) with a grade of "C" or better:

BSC 2010	General Biology I	Co-requisite: BSC 2010L	F, S, SS	3
BSC 2010L	General Biology I Lab	Co-requisite: BSC 2010	F, S, SS	1
BSC 2011	General Biology II	Co-requisite: BSC 2011L	F, S, SS	3
BSC 2011L	General Biology II Lab	Co-requisite: BSC 2011	F, S, SS	1
CHM 1045	General Chemistry I	"C" grade or higher in MAC 1105 or appropriate placement score (if no prior coursework in Math/Chem) Co-requisite: CHM 1045L	F, S, SS	3
CHM 1045L	General Chemistry I Lab	Co-requisite: CHM 1045	F, S, SS	1
CHM 1046	General Chemistry II	Prerequisite: CHM 1045 Co-requisite: CHM 1046L	F, S, SS	3
CHM 1046L	General Chemistry II Lab	Co-requisite: CHM 1046	F, S, SS	1
PHY2048	Physics W/Calculus I	Pre- or Co-requisite: MAC2311	F, S, SS	4
PHY2048L	General Physics Lab I	N/A	F, S, SS	1
PHY2049	Physics W/Calculus II	Pre- or Co-requisite: MAC2312 Prerequisite: PHY 2048	F, S, SS	4
PHY2049L	General Physics Lab II	Pre-requisite: PHY 2048L	F, S, SS	1
GLY 1010	Physical Geology	N/A	F, S, SS	3
GLY 1010L	Physical Geology Lab	N/A	F, S, SS	1

Required Courses (37 credits)

Complete all of the following with a grade of “C” or better (28 credits)

Course	Description	Pre-requisites	Term offered	Units
MAS 3105	Linear Algebra	MAC 2312	F, S, SS	3
STA 3163	Statistical Methods I	A course in Statistics or STA 2122 or MAC 2312	F	3
STA 3164	Statistical Methods II	STA 3163	S	3
STA 3951	Stats Presentations - GL	ENC 3213 and STA 3164 (Instructor consent required)	F, S, SS	1
STA 4321	Mathematical Statistics I	MAC 2313	F	3
STA 4322	Mathematical Statistics II	STA 4321	S	3
STA 4202	Intro Design of Experiments	STA 3163 or 3112 or 3123 or 4322	F	3
STA 4234	Intro Regression	STA 3112 or 3123 or 3164	S	3
STA 4664	Stat Quality Control	A course in Statistics	SS	3
ENC 3213	Prof and Technical Writing	ENC 1101, ENC 1102 or ENC 2304 for transfer students with 36 credit hours.	F, S, SS	3

Statistics Elective Requirement	Units
Complete two additional 3000-4000 level Statistics courses with a grade of “C” or better <i>STA 3930 (2 credits) may be used to satisfy this requirement along with an additional 3 credits 3000-4000 level Statistics course for a total of 5 credits.</i>	6

Statistics, Mathematics or Computer Science Course Requirement	Units
Complete one additional Statistics, Mathematics or Computer Science elective with a grade of “C” or better	3

Graduation Requirements:

- University Core Curriculum (UCC)
- Minimum of a 2.0 GPA
- 45 credits of Upper Division hours (3000-4000 level)
- 120 credit hours required for graduation
- Foreign Language requirement (FLENT/FLEX)
- Civic Literacy requirement

Students interested in Secondary Teacher Certification should contact the College of Arts, Sciences & Education Center for Advising & Student Success at (305) 348-2978