Recommended Schedule for Statistics Majors (Catalog Years 2018-2019 and 2019-2020)

First Year
Complete the following required courses:

Introduction to Applied Statistics Using R*
MATH 229 (3 credits)

Calculus I
MATH 235 (4 credits)
OR
MATH 231 and 232 (6 credits)

Calculus II
MATH 236 (4 credits)
[Prerequisite: MATH 235]

SAS Programming and Data Management[1]
MATH 309 (3 credits)
[Prerequisite: MATH 229 or 220 or 318]

Second Year
Complete the following required courses:

Introduction to Probability and Theoretical Statistics
MATH 329 (3 credits, Fall)
[Prerequisite: MATH 229* and 236]

Applied Linear Regression
MATH 322 (3 credits)
[Prerequisite: MATH 229 or 220 or 318]

Analysis of Variance and Experimental Design
MATH 321 (3 credits)
[Prerequisite: MATH 229 or 220 or 318]

Calculus III
MATH 237 (4 credits)
[Prerequisite: MATH 236]

Third and Fourth Years
Complete the following required courses:

Categorical Data Analysis
MATH 327 (3 credits)
[Prerequisite: MATH 229 or 220 or 318]

Linear Algebra[2]
MATH 300 (3 credits)
[Prerequisite: MATH 236]

Applied Multivariate Statistical Analysis
MATH 421 (3 credit, Fall)
[Prerequisite: (MATH 300 or 238) and (MATH 321 or 322)]

Probability and Mathematical Statistics I
MATH 426 (3 credits, Fall)
[Prerequisite: MATH 329 or 318]

Statistical Consulting[3]
MATH 428 (3 credits)
[Pre-requisite: (MATH 329 or 318), MATH 321, MATH 322, and (senior standing or consent of the instructor)]

Complete six credits chosen from the following approved elective courses:

- MATH 268E: Data Analysis and Visualization (3 credits, Spring) [Prerequisite: MATH 229 or 220 or 318]
- MATH 324: Applied Nonparametric Statistics (3 credits, Spring) [Prerequisite: MATH 229 or 220 or 318]
- MATH 325: Survey Sampling Methods (3 credits, Fall) [Prerequisite: MATH 229 or 220 or 318]
- MATH 328: Time Series Analysis (3 credits, Fall of even years) [Prerequisite: (MATH 329 or 318) and (MATH 300 or 238)]
- MATH 354: Introduction to Biometrics (3 credits, Spring) [Prerequisite: MATH 229 or 220 or 318]
- MATH 410: Advanced Calculus I (3 credits) [Prerequisite: MATH 245 and (MATH 300 or 238)]
- MATH 411: Advanced Calculus II[4] (3 credits, Spring) [Prerequisite: MATH 410]
- MATH 423: Stochastic Process (3 credits, Spring of odd years) [Prerequisite: (MATH 329 or 318) and (MATH 300 or 238)]
- MATH 424: Statistical Decision Theory (3 credits, Spring of even years) [Prerequisite: MATH 329 or 318]
- MATH 425E: Statistical Genomics (3 credits, Spring)
- MATH 427: Probability and Mathematical Statistics II (3 credits, Spring) [Prerequisite: MATH 426]
- MATH 429: Research Project in Statistics (1-3 credits) [Prerequisite: consent of instructor]

Approved Substitutions and Scheduling Notes:

* MATH 220 with a grade of C- or better may be substituted for MATH 229 if the student received credit for MATH 220 before declaring a statistics major. A score of 4 or 5 on the AP Statistics exam may be substituted for MATH 229.

1 MATH 248 Computers & Numerical Algorithms (4 credits) may be substituted for MATH 309. Students choosing to take MATH 248 will typically take this course in their 2nd, 3rd, or 4th year as MATH 236 is a prerequisite for MATH 248.

2 MATH 238 Linear Algebra with Differential Equations (4 credits) may be substituted for MATH 300.

3 MATH 428 is currently offered in the Spring. Beginning in 2020, it will be offered in both the Fall and the Spring.

4 MATH 411 is recommended for students planning to do graduate work in statistics.

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