A total of 21 credit hours are required, structured as follows:

I. Complete one statistics sequence by selecting one course from both 1a and 1b (6 Credits):
   1a. First Course in sequence:
       STAT 3005\textsuperscript{5} Statistical Methods (Pre: MATH 1206 or 1226 or equivalent) (3)
       STAT 3615\textsuperscript{1} Biological Statistics (3)
       STAT 4705\textsuperscript{2,3} Probability and Statistics for Engineers (Pre: MATH 2224 or 2204) (3)
   1b. Complete one sequence from the following (6 Credits):
       STAT 3006 Statistical Methods (Pre: STAT 3005) (3)
       STAT 3616 Biological Statistics (Pre: STAT 3615) (3)
       STAT 4706 Probability and Statistics for Engineers (Pre: STAT 4705) (3)

II. Complete one course from the following (3 credits):
    STAT 4204 Experimental Designs (Pre: STAT 3006, 3616 or 4706) (3)
    STAT 4214 Methods of Regression Analysis (Pre: STAT 3006, 3616 or 4706) (3)
    Note: If 4214 is taken to complete section II, it cannot count for 3 credits in section III.

III. Complete at least four courses from the following (12 credits minimum):
    STAT 3504 Nonparametric Statistics (Pre: STAT 3006, 3616 or 4706) (3)
    STAT/CMDA/CS 3654 Introductory Data Analytics and Visualization (Pre: CMDA 2006 or equivalent) (3)
    STAT 4004 Methods of Statistical Computing (Pre: STAT 4105 or 4705, 4214) (3)
    STAT 4214 Methods of Regression Analysis (Pre: STAT 3006, 3616 or 4706) (3)
    STAT 4364 Introduction to Statistical Genetics (Pre: 3006, MATH 1206, CS 1044 or 1054 or 1114) (3)
    STAT 4444 Applied Bayesian Statistics (Pre: MATH 2224) (3)
    STAT 4504 Applied Multivariate Statistics (Pre: STAT 3006, 3616 or 4706) (3)
    STAT 4514 Contingency Table Analysis (Pre: STAT 3006, 3616 or 4706) (3)
    STAT 4524 Sample Survey Methods (Pre: STAT 3006, 3616 or 4706) (3)
    STAT 4534 Applied Time Series Analysis (Pre: STAT 3006, 3616 or 4706) (3)
    STAT/CMDA/CS 4654 Intermediate Data Analytics and Machine Learning (Pre: CMDA 2006 or equivalent) (3)
    STAT 4664 Computational Intensive Stochastic Modeling (Pre: CMDA 2006 or equivalent) (3)
    STAT 4804\textsuperscript{4} Elementary Econometrics (Pre: STAT 3005, AAEC 1006) (3)
    ISE 4404 Statistical Quality Control (Pre: ISE 3414, STAT 4105, STAT 4706) (3)
    MATH 4454 Applied Mathematical Modeling (Pre: Math 2214) (3)

Footnotes:
1 If a student completed Stat 3604 prior to becoming a minor, it may replace Stat 3615.
2 If a student completed Stat 4714 or 4105 prior to becoming a minor, it may replace Stat 4705.
3 Stat 4705 has a pre-requisite of Math 2224 or 2204 Multivariate Calculus which has its own pre-requisite of Math 1206, 1224 or 1226, respectively.
4 For students completing a major or minor in Economics, ECON 4304, Introduction to Econometric Methods, can be substituted for STAT 4804.
5 If credit for STAT 3005 was awarded from an AP Statistics exam, the student satisfies 3 credits for Section I (as if they took STAT 3005)

Other notes:
• A minor GPA of 2.0 or higher must be attained in the courses counting toward the minor.
• IMPORTANT: Students are responsible for reading the course catalogue descriptions regarding the duplicate course list.