

East Central University
College of Health and Sciences
2024 - 2025 Mathematics - Data Science Degree Plan

FIRST YEAR

Fall Semester

MATH 1513 College Algebra
 CMPSC 1113 Computer Programming I
 MATH 1713 Trigonometry
 UNIV 1001 Tiger Connect (Information Literacy)
 ENG 1113 Freshman Composition I (Communication)
 PS 1113 United States Government (Critical Thinking)

16 TOTAL HOURS

Spring Semester

MATH 2825 Calculus and Analytic Geometry I
 CMPSC 1133 Computer Programming II
 ENG 1213 Freshman Composition II
 (Information Literacy)
 --4 Nature and Science (Includes Lab)

15 TOTAL HOURS

SECOND YEAR

Fall Semester

MATH 3025 Calculus and Analytic Geometry II
 CPSMA 2103 Data Structures
 MATH 1223 Intro to Probability and Statistics (Critical Thinking)
 ---3 Cultural and Aesthetic Awareness

14 TOTAL HOURS

Spring Semester

MATH 3033 Calculus and Analytic Geometry III
 CPSMA 3913 Discrete Mathematics
 CMPSC 4213 Data Base Design
 MATH 3713 Linear Algebra if offered elective otherwise
 ---3 Exploration and Personal Enrichment (Communication)

15 TOTAL HOURS

THIRD YEAR

Fall Semester

CPSMA 3933 Operations Research if offered
 ---3 Civic Consciousness (Critical Thinking)
 ---3 Cultural and Aesthetic Awareness (Global Citizenship)
 ---3 Nature and Science
 ---3 Electives

15 TOTAL HOURS

Spring Semester

MATH 3513 Mathematical Statistics **OR**
 MATH 3583 Applied Statistics
 CPSMA 3813 Data Mining **OR**
 CPSMA 4313 Data Processing and Visualization
 MATH 3713 Linear Algebra if offered elective otherwise
 CPSMA 4513 Data Applications in Business **OR**
 CPSMA 4413 Numerical Methods
 CMPSC 3313 Advanced Computer Languages

15 TOTAL HOURS

FOURTH YEAR

Fall Semester

MATH 4923 Perspectives in Mathematics
 CPSMA 3933 Operations Research if offered
 ---3 General Education Elective
 ---3 General Education Elective
 ---3 Elective

15 TOTAL HOURS

Spring Semester

MATH 3513 Mathematical Statistics **OR**
 MATH 3583 Applied Statistics
 CPSMA 3813 Data Mining **OR**
 CPSMA 4313 Data Processing and Visualization
 CPSMA 4513 Data Applications in Business **OR**
 CPSMA 4413 Numerical Methods
 ---6 Electives

15 TOTAL HOURS

Total Hours: 120