

## **BS in Data Science and Analytics**

### **Data Science and Engineering Concentration (120 credits)**

#### **Year One (32 cr)**

FALL (16 credits)

ENC 1101\* College Writing 1 (3)  
MAC 2311 Calculus with Analytic Geometry 1 (4)  
ANT 2410 Culture and Society (3)  
EVR 2017 Environment and Society (3)  
PSY 1012 Introduction to Psychology (3)

SPRING (16 credits)

ENC 1102\* College Writing 2 (3)  
MAD 2104 Discrete Mathematics (3)  
COP 2220 Introduction to Programming in C (3)  
GLY 2010C Physical Geology (4 cr. incl. Lab)  
EVR 1001 Environmental Science and Sustainability (3)

#### **Year Two (30 cr)**

FALL (15 credits)

STA 2023 Introductory Statistics (3)  
WOH 2012 & D\* History of Civilization 1 (3)  
MAP 2190 Mathematics of Data Science (3)  
COP 3014 Foundations of Computer Science (3)  
ARH 2000 Art Appreciation (3)

SPRING (15 credits)

PHI 2010 & D\* Introduction to Philosophy (3)  
CAP 2751 Tools for Data Science (3)  
CAP 2750 Experimental Design and Data Analysis (3)  
CCJ 3071 Artificial Intelligence for Social Good (3)  
COP 3530 Data Structures and Algorithm Analysis (3)

#### **Year Three (30 cr)**

FALL (15 credits)

QMB 3302 Data Management and Analysis with Excel (3)  
CAP 4773 Introduction to Data Science and Analytics (3)  
CAP 4770 Introduction to Data Mining and Machine Learning (3)  
COP 4045 Python Programming (3)  
Free elective (3)

SPRING (15 credits)

CAP 4613 Introduction to Deep Learning (3)  
COP 3540 Introduction to Database Structures (3)  
CAP 4630 Introduction to Artificial Intelligence (3)  
Free elective (3)

Free elective (3)

**Year Four (28 cr)**

FALL (14 credits)

ISC 4312 Data Science Capstone (2)

Free elective (3)

Free elective (3)

Free elective (3)

Free elective (3)

SPRING (14 credits)

ISC 4312 Data Science Capstone (2)

Free elective (3)

Free elective (3)

Free elective (3)

Free elective (3)

\* WAC course