

## **BSDSA -- Natural Sciences Concentration (120 credits)**

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

FALL (16 credits)

ENC 1101\* College Writing 1 (3)  
MAC 2311 Calculus with Analytic Geometry 1 (4)  
STA 2023 Introductory Statistics (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)  
MAD 2502 Introduction Computational Mathematics (3)  
GLY 2010C Physical Geology (4 cr. incl. Lab)  
EVR 1001 Environmental Science and Sustainability (3)

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

FALL (15 credits)

MAP 2190 Mathematics of Data Science (3)  
STA 3100 Computational Statistics (3)  
ANT 2410 Culture and Society (3)  
WOH 2012 & D\* History of Civilization 1 (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)  
QMB 3302 Data Management and Analysis with Excel (3)

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

FALL (15 credits)

CAP 3786 RI: Introduction to Data Science (3)  
STA 3173 Introduction to Biostatistics (3)  
STA 3024 SAS for Data and Statistical Analyses (3)  
STA 4234 Applied Statistics 1 (2)  
STA 4234 Applied Statistics 1 Lab (1)  
Free elective (3)

SPRING (15 credits)  
STA 4702 Applied Statistics 2 (3)  
Data Science elective (3)  
Free elective (3)  
Free elective (3)  
Free elective (3)

**Year Four (28 cr)**

FALL (14 credits)  
ISC 4312 Data Science Capstone (2)  
Data Science 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

## **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

## BSDSA -- Business (120 credits)

### Year One (32 cr)

#### FALL (16 credits)

ENC 1101\* College Writing 1 (3)

MAC1105 College Algebra (3)

Science elective (4) – choose from ANT2511, BSC1005, CHM 1020C, CHM 2083, ETG 2831, ESC 2070, GLY 2010C, GLY 2100, MET 2010, AST 2002, PSC 2121

Society and Human Behavior (3) – choose from ANT2000&D, EEX2091, EVR2017, POS2041, PSY1012, PAD2258, SYG1000, SYG2010, URP2051

Creative Expressions (3) - choose from ARC 2208, ARH 2000, FIL 2000, LIT 2010, LIT2030, LIT2040, LIT2070, LIT2100, MUL2010, DAN2100, THE2000

#### SPRING (16 credits)

ENC 1102\* College Writing 2 (3)

MAC 2233 Methods of Calculus (3)

GEB 2011 Introduction to Business (3)

STA 2023 Introductory Statistics (3)

Science elective (4) – choose from ANT2511, BSC1005, CHM 1020C, CHM 2083, ETG 2831, ESC 2070, GLY 2010C, GLY 2100, MET 2010, AST 2002, PSC 2121

### Year Two (30 cr)

#### FALL (15 credits)

MAP 2190 Mathematics of Data Science (3)

GEB 3231 Business Communication for Data Analysts (3)

ISM 3116 Introduction to Business Analytics and Big Data (3)

Creative Expressions (3) - choose from ARC 2208, ARH 2000, FIL 2000, LIT 2010, LIT2030, LIT2040, LIT2070, LIT2100, MUL2010, DAN2100, THE2000

Global Citizenship (3) – choose from ANT 2410, EDF 2854, GEA 2000, AMH2010, AMH2020, WOH2012, WOH2022, LAS2000, LIN2607, PHI2010, INR2002, SYD2790, SYP2450, SOW1005

#### 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)

QMB 3302 Data Management and Analysis with Excel (3)

Year Three (30 cr)

FALL (15 credits)

ISM 4117 Data Mining and Predictive Analytics (3)

ISM 4403 Advanced Business Analytics (3)

STA 3024 SAS for Data and Statistical Analyses (3)

Business Concentration Core Elective (3)

Business Concentration Core Elective (3)

SPRING (15 credits)

Data Science Elective (3)

Data Science elective (3)

Business Concentration Core Elective (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