

Prep Courses

Bachelor of Science

Computational Data Science 2022-2023

Year 1		Year 2		Year 3		Year 4	
Fall-18 hrs	Spring-16 hrs	Fall-15 hrs	Spring-16 hrs	Fall-15 hrs	Spring-15 hrs	Fall-15 hrs	Spring-15 hrs

CS 1400 *
Fundamentals of Programming

CS 1410 *
Object-Oriented Programming

CS 2300 *
Discrete Math I

CS 3520
Database Theory

CS 3530
Data Mgmt for Data Sciences

CS 3800
Data Science thru Stat Reasoning

CS 3810
Applied Data Sciences

CS 305G
Global Social & Ethical Issues

ENGL 1010
Introduction to Writing

ENGL 2010
Intermediate Writing

CS 2420 *
Intro to Algorithms & Data Structures

CS 2700
Casual Inference

CS 3270
Python Software Dev

CS 3320
Numerical Software Dev

CS 4700
Machine Learning I

CS 4710
Machine Learning II

MATH 1210 *
Calculus 1

Math 1220
Calculus II

Math 2210
Calculus III

Math 2270
Linear Algebra

ECE 3710
Probability & Stats for Engineers

CS 3820
Visualization Analytics for Data Science

CDS Elective
See note below

CS 4800
Data Science Capstone

STAT 2050
Intro to Statistical Methods

PHYS 2210 & 2215
Physics for Scientist and Engineers and Lab

Biology Gen Ed (See Wolverine Track)

PES 1097 or HLTH 1100 (General Education)

CDS Elective
See note below

CDS Elective
See note below

CS 3100
Data Privacy & Security

EDS Elective
See note below

American Institutions (See Wolverine Track)

Third Science (See Wolverine Track)

COMM 2110 (General Education)

Fine Arts Gen Ed (See Wolverine Track)

PHIL 2050
Ethics & Values

Comm 1020 & 1025 (General Education)



See Advisor for evaluation of English & Math placement scores.

See Advisor for to get a class and information on pre-requisite courses required to begin taking CS courses

Notes

CDS Electives: Four courses from another discipline, at least 6 credits of which must be 3000 or 4000 level or higher. Requires department approval.
Third Science: Choose from one of the following combinations: BIOL 1610/1615; CHEM 1210/1215, GEO 1010/1015/202R; PHYS 2020/2025; PHYS 2220/2225

Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline requirements

Complete CS Exit Survey graduating semester