

Prep Courses

Bachelor of Science

Computational Data Science 2021-2022

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-13 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

ECE 3710
Probability &
Stats for
Engineers

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

CS 3100
Data Privacy
& Security

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
Scientists and
Engineers
and Lab

Biology
Gen Ed
(See
Wolverine
Track)

PES 1097 or
HLTH 1100
(General
Education)

CDS Elective
See not
below

CDS Elective
See note
below

Comm 1020
& 1025
(General
Education)

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

CS 496R
Senior
Seminar



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