COMPUTATIONAL DATA SCIENCE (2026-2027)

Freshman FALL (16)	Freshman SPRING (16)	Sophomore FALL (16)	Sophomore SPRING (15)	Junior FALL (16)	Junior SPRING (15)	Senior FALL (15)	Senior SPRING (12)
CS 1400 Fundamentals of programming (3, F, Sp, Su)	CS 1410 Object-Oriented Programming (3, F, Sp, Su)	CS 2300 Discrete Mathematical Structures (3, F, Sp, Su)	CS 2700 Causal Inference (3, F, Sp, Su)	CS 2450 Software Engineering (3, F, Sp, Su)	CS 2900 Data Privacy and Security ★ (3, F, Sp)	CS 3310 Analysis of Algorithms ★ (3, F, Sp)	CS 3050G Global Social & Ethical Issues in Computing ★ (3, F, Sp, Su)
ENGL 1010 Intro to Academic Writing (3, F, Sp, Su)	ENGL 2010 Intermediate Writing (3, F, Sp, Su)	CS 2420 Intro to Algorithms & Data Structures (3, F, Sp, Su)	CS 3520 Database Theory ★ (3, F, Sp, Su)	CS 3270 Python Software Development ★ (3, F, Sp)	See WT: CS ELECTIVE #2 (See WT) ★ (3, F, Sp)	CS 3800 Data Sci. Through Stat Reasoning ★ (3, Fa)	CS 4710 Machine Learning II ★ (3, Sp)
American Institutions (See WT) (3, F, Sp, Su)	Humanities (See WT) (3, F, Sp, Su)	Fine Arts (See WT) (3, F, Sp, Su)	See WT: CS ELECTIVE #1 (See WT) ★ (3, F, Sp)	CS 3530 Data Mgmt for Data Sciences ★ (3, F, Sp)	CS 3820 Visual Analytics for Data Science ★ (3, Sp)	CS 4700 Machine Learning I ★ (3, F, Su)	CS 4800 Data Science Capstone ★ (3, Sp)
PPCG (See WT) (3, F, Sp, Su)	Biology (See WT) (3, F, Sp, Su)	Physical Science (See WT) (3, F, Sp, Su)	See WT: NON-CS ELECTIVE #1 (See WT) ★ (3, F, Sp)	See WT: NON-CS ELECTIVE #2 (See WT) ★ (3, F, Sp)	See WT: NON-CS ELECTIVE #3 (See WT) ★ (3, F, Sp)	See WT: NON-CS ELECTIVE #4 (See WT) ★ (3, F, Sp)	See WT: SENIOR ELECTIVE (See WT) ★ (3, F, Sp)
MATH 1210 Calculus I (4, F, Sp, Su)	MATH 1220 Calculus II (4, F, Sp, Su)	MATH 2210 Calculus III (4, F, Sp, Su)	MATH 2270 Linear Algebra (3, F, Sp)	STAT 2050 Intro to Statistical Methods ★ (4, F, Sp, Su)	MATH 3640 Intro to Optimization (3, Sp)	Social/ Behavioral (See WT) (3, F, Sp, Su)	

See red note at bottom

MATH 1050 College Algebra

For CS 1400: Understanding of math at least through high school algebra & trigonometry
For CS 1410: Understanding math at least through college algebra

Option 1: CS 1400 & CS 1410
Option 2: CS 1420 & 1 CS elective not already required. To enroll in CS 1420 students must pass the entrance exam located in room CS 520.

Arrows indicate prerequisites.
WT = Wolverine Track.

★UAS – University Advanced Standing requirement: Before students can register for 3000- or 4000-level courses they must qualify for UAS by:

- Completing at least 24 college credits
- Having a cumulative 2.0 GPA or higher
- Completing MAT 1030 or higher
- Completing ENGL 2010

DISCLAIMER – This flowchart is not meant to replace appointments with your Academic Advisor. It is important to meet with your Advisor regularly.