

Suggested Sequence for Computer Science Majors with Data Science Specialization

All courses are 1 Unit (4 credit hours) unless otherwise noted. A full-time student typically takes 4 units, or up to a maximum of 4.5 units, in a semester.

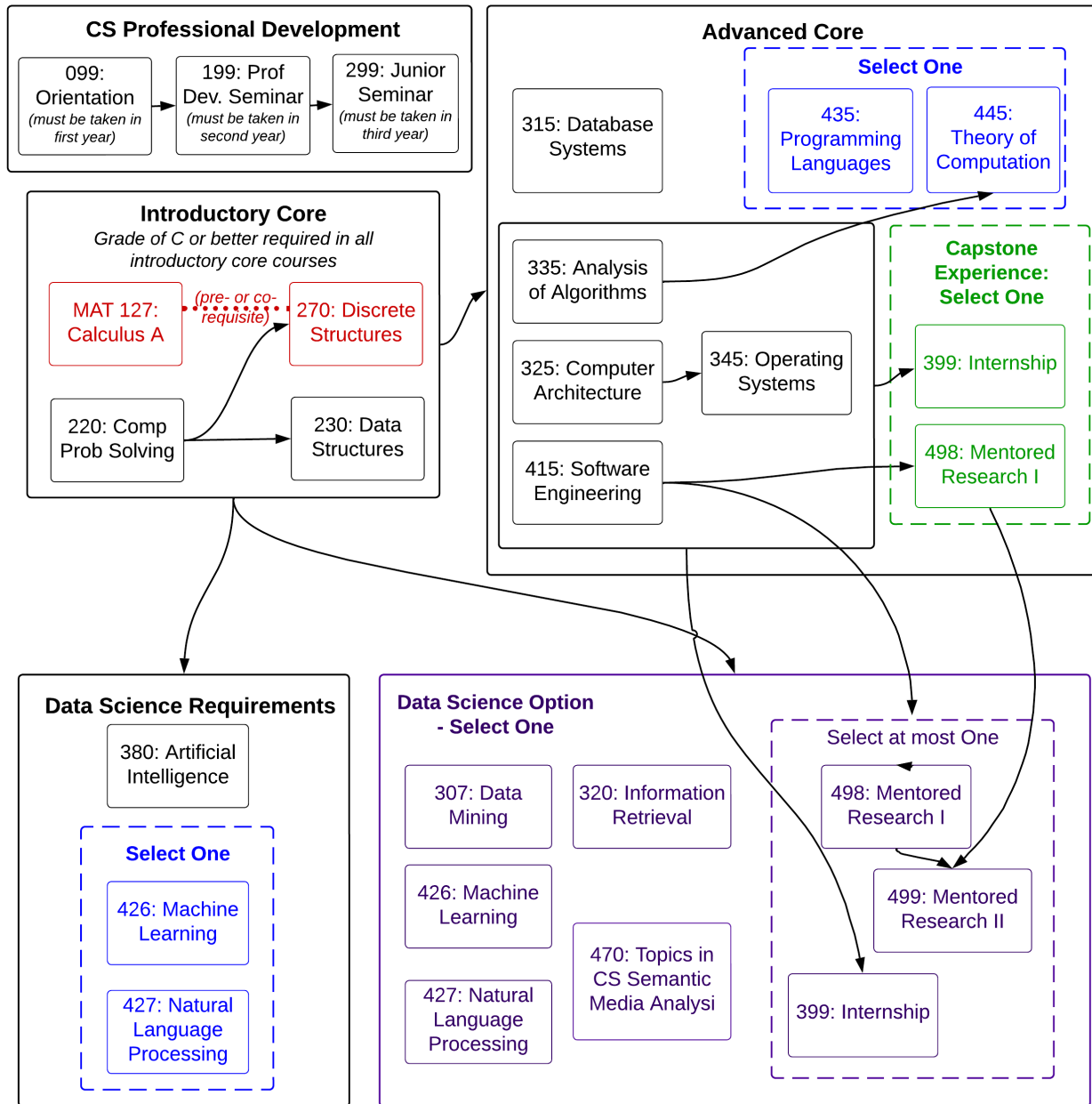
- **Green** indicates **Computer Science** courses;
- **Blue** indicates **Math or Science correlate** courses;
- **Orange** indicates **College Core / Liberal Learning** courses, including the **world language** requirement.
- **Black** indicates free elective courses.

Year 1 (8 units)	
Fall CSC 099: Orientation to CS (0 unit; Fall) CSC 220: Computational Problem Solving (Fall) MAT 127: Calculus A First Year Seminar (Fall) World Language 1	Spring CSC 230: Data Structures (Spring) CSC 270: Discrete Structures (Spring) STA 215: Statistical Inference World Language 2
Year 2 (8.25 units)	
CSC 199: Prof. Dev. Seminar (0.25 unit; Fall) CSC 325: Computer Architecture CSC 335: Analysis of Algorithms CSC 345: Operating Systems CSC 315 (Spring)	MAT 205: Linear Algebra STA 305: Regression Analysis STA 306: Multivariate Statistics World Language 3 (if needed) <u>or</u> College Core / Liberal Learning
Year 3 (8.25 units)	
CSC 299: Junior Seminar (0.25 unit; Spring) CSC 380: Artificial Intelligence CSC 426: Machine Learning <u>or</u> CSC 427: Natural Language Processing CSC 415: Software Engineering	CS Option (from approved list of CS Options for Data Science) Science (2 units) College Core / Liberal Learning (2 units)
Year 4 (8 units)	
CSC 399: Internship <u>or</u> CSC 498: Mentored Research CSC 435: Programming Languages <u>or</u> CSC 445: Theory of Computation College Core / Liberal Learning (2-3 units as needed) Free Elective (3 units) – recommended to take courses from lists of CS Options or additional courses approved for Data Science	

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The flowchart below shows the Computer Science core and optional courses. The arrows indicate the prerequisite structure.

Computer Science Major with Data Science Specialization Course Prerequisite Structure



(All course prefixes are CSC, unless otherwise specified)

Legend:

Black: Required Core

Blue: Required Selection

Green: Required Capstone

Purple: Major Elective

Red: Required Math

Effective Fall 2020