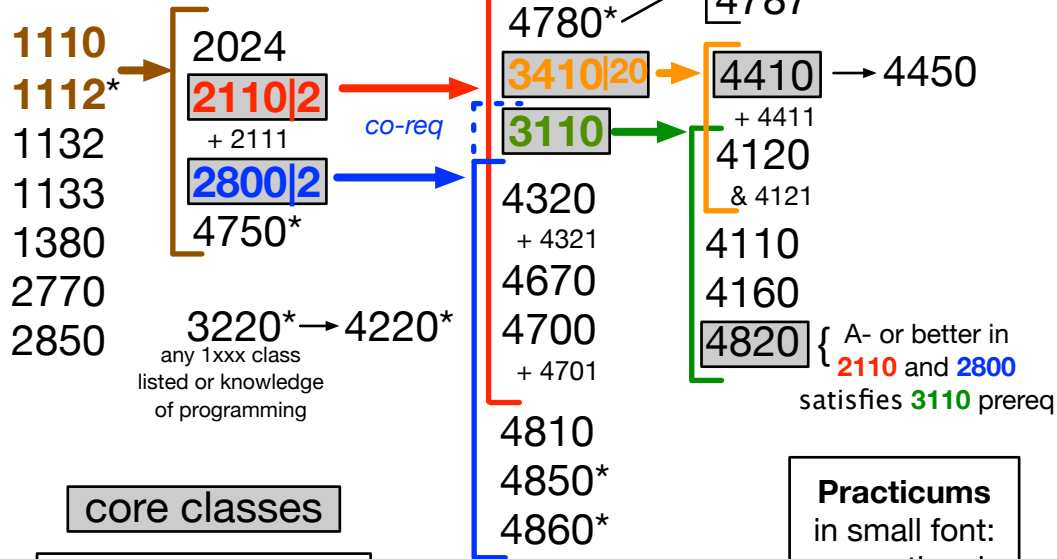


CS Undergraduate Prerequisite Structure

bold & colored courses
(with corresponding arrows) indicate prerequisites



core classes

starred (*) courses
have at least 1 MATH
pre- or co-requisite
See Roster.

Practicums
in small font:
+ : optional
& : required

3110: Data Structures and Functional Programming

3152: Introduction to Computer Game Architecture

3220: Introduction to Scientific Computation

3410: Computer System Organization and Programming

3420: Embedded Systems (*prereq: ENGRD 2300, not shown*)

4110: Programming Languages and Logics

4120: Introduction to Compilers

4152: Advanced Topics in Computer Game Architecture

4154: Analytics-driven Game Design

4160: Formal Verification

4220: Numerical Analysis: Linear and Nonlinear Problems

4320: Introduction to Database Systems

4410: Operating Systems

4450: Introduction to Computer Networks

4620: Introduction to Computer Graphics

4670: Introduction to Computer Vision

4700: Foundations of Artificial Intelligence

4740: Natural Language Processing

4750: Foundations of Robotics

4780: Machine Learning for Intelligent Systems

4786: Machine Learning for Data Science

4787: Principles of Large-Scale Machine Learning

4810: Introduction to Theory of Computing

4820: Introduction to Analysis of Algorithms

4850: Mathematical Foundations for the Information Age

4860: Applied Logic

1110: Introduction to Computing Using Python

1112: Introduction to Computing Using MATLAB

1132: Short Course in MATLAB

1133: Short Course in Python

1380: Data Science for All

2024: C++ Programming

2110: Object-Oriented Programming and Data Structures

2112: Object-Oriented Design and Data Structures - Honors

2770: Excursions in Computational Sustainability

2800: Discrete Structures

2802: Discrete Structures - Honors

2850: Networks

