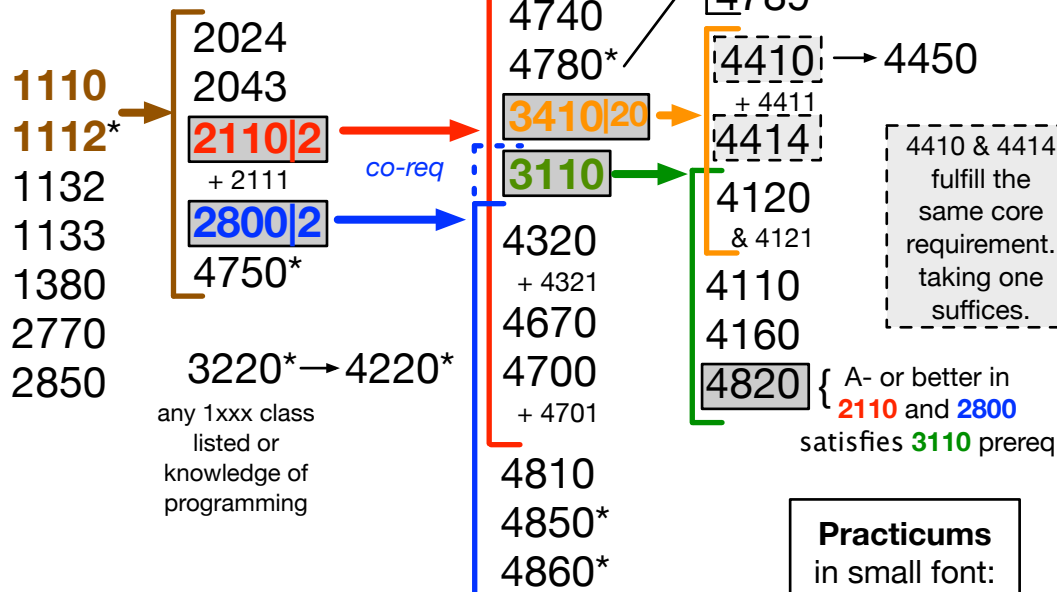


CS Undergraduate Prerequisite Structure

- 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
- 4414: Systems Programming
- 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
- 4789: Introduction to Reinforcement Learning
- 4810: Introduction to Theory of Computing
- 4820: Introduction to Analysis of Algorithms
- 4850: Mathematical Foundations for the Information Age
- 4860: Applied Logic

bold & colored courses
(with corresponding
arrows) indicate
prerequisites



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

core classes

Practicums
in small font:
+ : optional
& : required

- 1110**: Intro Computing: Design & Development
- 1112**: Intro Computing: Engineering & Science
- 1132: Short Course in MATLAB
- 1133: Short Course in Python
- 1380: Data Science for All
- 2024: C++ Programming
- 2043: UNIX Tools & Scripting

- 2110**: Object-Oriented Programming & Data Structures
- 2112**: Object-Oriented Design and Data Structures - Honors
- 2770: Excursions in Computational Sustainability
- 2800**: Discrete Structures
- 2802**: Discrete Structures - Honors
- 2850: Networks

