BS Computer Science Eight Semester Plan 2024-2025

Semester 1 and 2

- **CS 1436*** Programming Fundamentals
- **CS 1337*** Computer Science I — CS 1436
- **MATH 2413* or 2417*** Calculus I — ALEKS 80% or MATH 2312
- **MATH 2414* or 2419*** Calculus II — MATH 2413 or 2417
- **ECS 1100** Intro to Eng and CS — First Year
- **PHYS 2325/2125** Mechanics and Lab — MATH 2413 or 2417; MATH 2414 or 2419
- **CS 1200** Introduction to CS and SE
- **CS 2305*** Discrete Mathematics — MATH 2413 or 2417
- Core
- Core

Semester 3 and 4

- **CS 2336* or CS 2337*** Computer Science II — CS 2305; CS 1337
- **ECS 2390** Professional and Technical Comm. — RHET 1302
- **CS 2340** Computer Architecture — CS 1337; CS 2305
- **CS 3341** Probability and Statistics in CS and SE — MATH 2414 or 2419; CS 2305; MATH 2418
- **PHYS 2326/2126** Electricity and Magnetism and Lab — PHYS 2325/2125; MATH 2414 or 2419
- **CS 3345** Data Structures and Algorithms — CS 2336 or CS 2337; CS 2305; CS 3341
- **MATH 2418*** Linear Algebra — MATH 2413 or 2417
- **CS 3377** Systems Programming — CS 2336 or 2337
- Core
- Core

Semester 5 and 6

- **CS 4337** Programming Language Paradigms — CS 2336; CS 2305; CS 2340
- **CS 4349** Advanced Algorithm Design and Analysis — CS 2305; CS 3345
- **CS 4341/4141** Digital Logic Computer Design and Lab — PHYS 2326/2126; CS 2340
- **CS 3162** Professional Responsibility — CS 3354; CS 3345
- **CS 3354** Software Engineering
- **CS 4348** Operating Systems Concepts — CS 2340; CS 3377
- Core
- Technical Elective — See Catalog
- Core
- Free Elective
- Core

Semester 7 and 8

- **CS 4384** Automata Theory — CS 2305
- **CS 4485** Computer Science Project — CS 3345; CS 3354; 3 CS 4XXX
- **CS 4347** Database Systems — CS 3345
- Technical Elective — See Catalog
- Technical Elective — See Catalog
- Free Elective (1SCH)
- Free Elective
- Free Elective
- Technical Elective — See Catalog
- Core

First Year only; Transfer sub with Technical Elective

Major Preparatory Core

Prerequisite

Pre- or Corequisite

critical path

*** GRADE REQUIREMENTS**

D- or better required unless noted by *

C or better required in CS 1436, CS 1337, CS 2305, CS 2336 or 2337, MATH 2413 or 2417, MATH 2414 or 2419, MATH 2418

CORE CURRICULUM CHOICES

RHET 1302	GOVT 2305	GOVT 2306	American History (060)	American History (060)	Language, Philosophy and Culture (040)	Creative Arts (050)	Social and Behavioral Sciences (080)

ERIK JONSSON SCHOOL OF ENGINEERING AND COMPUTER SCIENCE