

# COMPUTER SCIENCE



For students who  
have not taken FYS

Catalog Term: Fall 2020

120 total credits

Last updated: 5/2021

12 FRESHMAN	
FALL	15 SPRING
ENGL 101 (3) College English I  Grade C- or better	ENGL 102 (3) College English II  Prereq: ENGL 101 Grade C- or better
MATH 242 (5) Calculus I  Prereq: See Course Catalog	MATH 243 (5) Calculus II  Prereq: MATH 242 Grade C or better
CS 194 (4) or ECE 194 Introduction to Digital Design  Prereq: MATH 111 or equivalent Grade C- or better	PHIL 125 (3) Introductory Logic HU Note b
	CS 211 (4) Intro to Programming  Prereq: MATH 111 or equivalent Grade c_ or better

14 SOPHOMORE	
FALL	14 SPRING
COMM 111 (3) Public Speaking  Grade C-or better	General Education (3) FA/SB  Note c
MATH 321/CS 321 (3) Discrete Structures I  Prereq: MATH 242 or equivalent Grade C or better	MATH 322 (3) Discrete Structures II  Prereq: MATH 321 Grade C or better
PHYS 313 (4) Physics for Scientist I  Cncprereq: MATH 243 Grade C or better	PHYS 314 (4) Physics for Scientist II  Prereq: MATH 243 and PHYS 313 Grade C or better
CS 311 (4) Object-Oriented Programming  Prereq: CS 211 Grade C- or better	PHYS 316 (1) University Physics Lab II  Cncprereq: PHYS 314
	CS 238 (3) or ECE 238 Assembly Language Programming  Prereq: CS 211 Grade C- or better
	Engineering+ Requirement (1 of 3)

16 JUNIOR	
FALL	15 SPRING
IME 254 (3) Engineering Probability & Statistics I  Prereq: MATH 243 or MATH 252 Grade C or better	PHIL 354 (3) Ethics and Computers <b>OFFERED SPRING ONLY</b>  Prereq: Junior standing or Departmental consent Note d
IME 255 (3) Engineering Economy  Cncprereq: MATH 242 or 251 Grade C or better	MATH 511 (3) Linear Algebra  Prereq: MATH 243 Grade C or better
General Education SB/FA (3)  Note c	CS 394 (3) or ECE 394 Introduction to Computer Architecture  Prereq: CS 194 and CS 211 Grades C- or better
CS 400 (4) Data Structures  Prereq: CS 311 Grade C- or better	CS 510 (3) Programming Language Concepts  Prereq: CS 311 and Math 322 Grades C- or better
CS 410 (3) Programming Paradigms  Prereq: CS 311 Grade C- or better	CS 480 (3) or CS 580 Introduction to Software Engineering  Prereq: CS 311 Grade C- or better
Engineering+ Requirement (2 of 3)	Engineering+ Requirement (3 of 3)

17 SENIOR	
FALL	17 SPRING
CS 464 (3) or CS 664 Computer Networks  Prereq: CS311 and IME 254 Grades C- or better	Technical Elective (3)  Note a
CS 540 (3) Operating Systems  Prereq: CS 238 and CS 311 Grades C- or better	CS 560 (3) Design and Analysis of Algorithms  Prereq: CS 400, MATH 322 & IME 254 Grades C- or better
CS 598 (2) or EE 585 Senior Design Project I  Prereq: Senior standing, CS 480 or EE 492 Cncprereq: PHIL 354 or 385 Grades C- or better in each	CS 599 (2) or EE 595 Senior Design Project II Note e Prereq: CS 598 Grade C- or better
CS 665 (3) Introduction to Database Systems  Prereq: CS 311 and Math 322 Grades C- or better	Technical Elective (3)  Note a
Technical Elective (3)  Note a	Technical Elective (3)  Note a
Technical Elective (3)  Note a	Technical Elective (3)  Note a

NOTES: (a) At least 15 of the 18 Technical Elective hours **must be** from the EECS Dept. Up to 2 credit hours of Co-op courses can be used as **non-departmental** technical electives. (b) PHIL 125 fulfils HU requirement. (c) One of the General Education courses listed must be from FA, the other from SB; both must be from an approved list of courses. (d) PHIL 354 fulfils HU requirement. (e) CS 599 can only be taken if student received a C- or better in CS 598 in exactly the previous long semester. All prerequisites for EE/ECE/CS courses must be passed with a C- or better.

Legend: General Education: FA = Fine Arts. SB = Social and Behavioral Sciences. HU = Humanities. MS = Mathematics and Natural Sciences.  
Prereq = Prerequisite. Cncprereq = Concurrent prerequisite (pre- or co-requisite).