



2022-2023 Undergraduate Course Offerings

Below is a list of undergraduate courses currently scheduled to be offered starting in Fall 2022. Please refer to the [UCR General Catalog](#) for course descriptions. Course offerings from previous years can be viewed in our [Archive \(/undergraduate/archive\)](#).

Note: Course offerings, available sections and professor assignments are subject to change without notice. Additional courses may be added, please check again later to see if there are any other courses you would like to take.

Course	Course Title	Fall 2022	Winter 2023	Spring 2023
ENGR 001 (/undergraduate/course-descriptions)	Professional Development and Mentoring	Paea LePendu		
ENGR 101 (/undergraduate/course-descriptions#ENGR101)	Professional Development and Mentoring		Michalis Faloutsos	
ENGR 180 (/undergraduate/course-descriptions#ENGR180W)	Technical Communications	Burton/Graham	Burton/Graham	Burton/Graham
CS 005 (/undergraduate/course-descriptions#CS005)	Introduction to Computer Programming	Yu Qu Laila Abdelhafeez	Yu Qu Laila Abdelhafeez	Yu Qu Laila Abdelhafeez
CS 006 (/undergraduate/course-descriptions#CS006)	Effective Use of the World Wide Web	Ryan Rusich Niloofar Montazeri	Ryan Rusich Niloofar Montazeri	Ryan Rusich
CS 008 (/undergraduate/course-descriptions#CS008)	Introduction to Computing	Toby Gustafson	Toby Gustafson	Toby Gustafson
CS 009A (/undergraduate/course-descriptions#CS009A)	Data-oriented Introduction to Computing I (Python)	Shirin Shirazi	Shirin Shirazi	Shirin Shirazi

CS 009B (/undergraduate/course-descriptions#CS009B)	Data Oriented Introduction to Computing II (Python)	Yunfei Hou	Paea LePendu	Paea LePendu
CS 009C (/undergraduate/course-descriptions#CS009C)	C++ for Programmers (2 units)		Paea LePendu	Paea LePendu
CS 010A (/undergraduate/course-descriptions#CS010)	Intro to Computer Science for Science, Mathematics, & Engineering (C++)	Kelly Downey Kris Miller Carter Slocum	Kelly Downey Mohammad Shahneh	Kelly Downey Frank Vahid
CS 010B (/undergraduate/course-descriptions#CS010)	Intro to Computer Science for Science, Mathematics, & Engineering II (C++)	Kris Miller	Kris Miller Patrick Miller	Kris Miller
CS 010C (/undergraduate/course-descriptions#CS010)	Introduction to Data Structures and Algorithms	Amr Magdy Elena Strzheletska	Patrick Miller	Silas Richelson Patrick Miller
CS 061 (/undergraduate/course-descriptions#CS061)	Machine Organization and Assembly Language Programming	Allan Knight	Allan Knight	Kris Miller Allan Knight
CS 100 (/undergraduate/course-descriptions#CS100)	Software Construction	Reem Ali	Reem Ali	Reem Ali
CS 105 (/undergraduate/course-descriptions#CS105)	Data Analysis Methods	Elena Strzheletska	Elena Strzheletska	Elena Strzheletska
CS 108 (/undergraduate/course-descriptions#CS108)	Data Science Ethics		Mariam Salloum	
CS 110 (/undergraduate/course-descriptions#CS110)	Web Development			Mohammad Shahneh
CS 111 (/undergraduate/course-descriptions#CS111)	Discrete Structures	Marek Chrobak Elena Strzheletska	Elena Strzheletska	Elena Strzheletska
CS/EE 120A (/undergraduate/course-descriptions#CS/EE120A)	Logic Design	Jia Chen (ECE Faculty)	Jia Chen (ECE Faculty)	Jia Chen (ECE Faculty)
CS/EE 120B (/undergraduate/course-descriptions#CS/EE120B)	Introduction to Embedded Systems	Philip Brisk		Frank Vahid

CS 122A (/undergraduate/course-descriptions#CS122A)	Intermediate Embedded and Real-Time Systems			Frank Vahid
CS 130 (/undergraduate/course-descriptions#CS130)	Computer Graphics	Craig Schroeder	Tamar Shinar	
CS 131 (/undergraduate/course-descriptions#CS131)	Edge Computing			Neftali W. Medina
CS 135 (/undergraduate/course-descriptions#CS135)	Virtual/augmented Reality	Jiasi Chen		
CS 141 (/undergraduate/course-descriptions#CS141)	Intermediate Data Structures and Algorithms	Yan Gu Yihan Sun	Amr Magdy Mingxun Wang	Amey Bhangale Ahmed Eldawy
CS 142 (/undergraduate/course-descriptions#CS142)	Algorithm Engineering		Yihan Sun	Patrick Miller
CS 144 (/undergraduate/course-descriptions#CS144)	Algorithm for BioInformatics			Stefano Lonardi
CS 145 (/undergraduate/course-descriptions#CS145)	Combinatorial Optimization Algorithms	Silas Richelson		
CS/EE 147 (/undergraduate/course-descriptions#CS/EE147)	GPU Programming			Daniel Wong (ECE faculty)
CS 150 (/undergraduate/course-descriptions#CS150)	Automata and Formal Languages	Tao Jiang	Paea LePendur	Tao Jiang
CS 152 (/undergraduate/course-descriptions#CS152)	Compiler Design	Zhijia Zhao	Neftali W. Medina	Neftali W. Medina
CS 153 (/undergraduate/course-descriptions#CS153)	Design of Operating Systems	Heng Yin	Nael Abu-Ghazaleh	Chengyu Song
CS 160 (/undergraduate/course-descriptions#CS160)	Concurrent Programming and Parallel Systems	Mohsen Lesani		
CS 161 (/undergraduate/course-descriptions#CS161)	Design and Architecture of Computer Systems	Zizhong Cheng	Daniel Enright	Elaheh Sadredini

CS 161L (/undergraduate/course-descriptions#CS161L)	Laboratory in Design & Architecture of Computer Systems		Allan Knight	Allan Knight
CS 164 (/undergraduate/course-descriptions#CS164)	Computer Networks	KK Ramakrishnan		
CS 165 (/undergraduate/course-descriptions#CS165)	Computer Security		Heng Yin	Zhiyun Qian
CS 166 (/undergraduate/course-descriptions#CS166)	Database Management Systems	Vassilis Tsotras	Vassilis Tsotras	
CS 167 (/undergraduate/course-descriptions#CS167)	Introduction to Big Data Management		Ahmed Eldawy	
CS/EE 168 (/undergraduate/course-descriptions#CS/EE168)	Introduction to Very Large Scale Integration Design		Sheldon Tan (ECE Faculty)	
CS 169 (/undergraduate/course-descriptions#CS169)	Mobile Wireless Networks		Srikanth Krishnamurthy	
CS 170 (/undergraduate/course-descriptions#CS170)	Introduction to Artificial Intelligence	Eamonn Keogh	Niloofer Montazeri	Sofia Sakellaridi
CS 171/EE 142 (/undergraduate/course-descriptions#CS171/EE142)	Introduction to Machine Learning and Data Mining	Salman Asif (ECE Faculty)	Christian Shelton	Vagelis Papalexakis
CS 172 (/undergraduate/course-descriptions#CS172)	Introduction to Information Retrieval			Vagelis Hristidis
CS 173 (/undergraduate/course-descriptions#CS173)	Introduction to NLP			Yue Dong
CS 175 (/undergraduate/course-descriptions#CS175)	Entrepreneurship in Computing	Michalis Faloutsos		
CS 178A (/undergraduate/course-descriptions#CS178A)	Project Sequence in CSE	Neftali W. Medina		
CS 178B (/undergraduate/course-descriptions#CS178B)	Project Sequence in CSE		Neftali W. Medina	

CS 179F (/undergraduate/course-descriptions#CS179F)	Project in CS: Operating Systems	Zhiyun Qian	Chengyu Song	
CS 179G (/undergraduate/course-descriptions#CS179G)	Project in CS: Database Systems	Vagelis Hristidis		
CS 179I (/undergraduate/course-descriptions#CS179I)	Project in CS: Networks			KK Ramakrishnan
CS 179J (/undergraduate/course-descriptions#CS179J)	Project in CS: Computer Architecture and Embedded Systems		Walid Najjar	
CS 179M (/undergraduate/course-descriptions#CS179M)	Project in CS: Artificial Intelligence		Eamonn Keogh	
CS 179N (/undergraduate/course-descriptions#CS179N)	Project in CS: Graphics and Electronic Games			Craig Schroeder
CS 180 (/undergraduate/course-descriptions#CS180)	Introduction to Software Engineering		Qian Zhang	Zhijia Zhao
CS 181 (/undergraduate/course-descriptions#CS181)	Principles of Programming Languages	Manu Sridharan		
CS 182 (/undergraduate/course-descriptions#CS182)	Software Testing and Verification	Qian Zhang		
CS 189 (/undergraduate/course-descriptions#CS189)	Apprentice Tutoring (1 unit)	Jiasi Chen		

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



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