Courses offered in Fall 2023-24

Code	Title	Remarks
BIEN2310	Modeling for Chemical and Biological Engineering	
BIEN2610	Chemical Biology for Engineers	
BIEN3300	Data Science for Molecular Engineering	
BIEN3310	Data Science for Neural Engineering	
BIEN3410	Introduction to Bioinstrumentation and Bioimaging	
BIEN3910	Bioengineering Laboratory	
CENG1000	Introduction to Chemical and Biological Engineering	
CENG1600	Biotechnology and Its Business Opportunities	
CENG1700	Introduction to Environmental Engineering	
CENG2110	Process and Product Design Principles	
CENG2310	Modeling for Chemical and Biological Engineering	
CENG3210	Separation Processes	
CENG3220	Transport Phenomena II	
CENG3230	Chemical and Biological Reaction Engineering	
CENG3300	Data Science for Molecular Engineering	
CENG4710	Environmental Control	
CIVL1100	Discovering Civil and Environmental Engineering	
CIVL1150	Climate Change Impacts and Extreme Weather Events	
CIVL1160	Civil Engineering and Modern Society	
CIVL1180	Monitoring Changing Climate from Space	
CIVL1190	Climate Change, Big History and Sustainability	
CIVL1210	Fundamental of Green Buildings	CIVL2910 to be changed to CIVL1210
CIVL1220	Big Data for Smarter Cities	
CIVL2110	Statics	
CIVL2160	Modeling Systems with Uncertainties	
CIVL2810	Construction Materials	
CIVL3310	Structural Analysis	
CIVL3510	Hydrosystems Engineering	
CIVL3730	Fundamentals of Geotechnics	
CIVL4100N	Energy System Modelling for Buildings and Cities	
CIVL4100P	Wave Loads on Structures	
CIVL4210	Advanced Construction with AI and Robotics	
CIVL4330	Introduction to Structural Dynamics	
CIVL4380	Introduction to Wind Effects on Buildings and Structures	
CIVL4460	Process Design of Environmental Engineering Facilities	
CIVL4470	Air Quality Control and Management	
CIVL4610	Introduction to data analytics for smart transportation systems	
CIVL4620	Transportation System Operations	
CIVL4700	Engineering Geology	
CIVL4750	Numerical Solutions to Geotechnical Problems	
CIVL4810	Construction Materials Technology	
CIVL4950	Civil Engineering Capstone Design Project	
COMP1021	Introduction to Computer Science	
COMP1022P (pure online)	Introduction to Computing with Java	
COMP1029C	C Programming Bridging Course	
COMP1029J	Java Programming Bridging Course	
COMP1029P	Python Programming Bridging Course	
COMP1029V	Excel VBA Programming Bridging Course	
COMP2011	Programming with C++	
COMP2012	Object-Oriented Programming and Data Structures	
COMP2012H	Honors Object-Oriented Programming and Data Structures	*Not for pre-enrollment*
COMP2211	Exploring Artificial Intelligence	*Not for pre-enrollment*
COMP2611	Computer Organization	
COMP2633	Competitive Programming in Cybersecurity I	*Not for pre-enrollment*
COMP2711	Discrete Mathematical Tools for Computer Science	
COMP2711H	Honors Discrete Mathematical Tools for Computer Science	*Not for pre-enrollment*
COMP3021	Java Programming	*Not for pre-enrollment*
COMP3031	Principles of Programming Languages	*Not for pre-enrollment*
COMP3111	Software Engineering	
COMP3111H	Honors Software Engineering	*Not for pre-enrollment*
COMP3211	Fundamentals of Artificial Intelligence	*Not for pre-enrollment*

COMP3311	Database Management Systems	*Not for pre-enrollment*
COMP3511	Operating Systems	
COMP3632	Principles of Cybersecurity	*Not for pre-enrollment*
COMP3711	Design and Analysis of Algorithms	
COMP3721	Theory of Computation	*Not for pre-enrollment*
COMP4021	Internet Computing	*Not for pre-enrollment*
COMP4211	Machine Learning	*Not for pre-enrollment*
COMP4331	Introduction to Data Mining	*Not for pre-enrollment*
COMP4421	Image Processing	*Not for pre-enrollment*
COMP4462	Data Visualization	*Not for pre-enrollment*
COMP4471	Deep Learning in Computer Vision	*Not for pre-enrollment*
COMP4521	Mobile Application Development	*Not for pre-enrollment*
COMP4631	Computer and Communication Security	*Not for pre-enrollment*
COMP4633	Competitive Programming in Cybersecurity III	*Not for pre-enrollment*
COMP4900	Academic and Professional Development	*Not for pre-enrollment*
COMP5211	Fundamentals of Software Testing and Analysis	*Not for pre-enrollment*
COMP5212	Machine Learning	*Not for pre-enrollment*
COMP5222	Statistical Learning Models for Text and Graph Data	*Not for pre-enrollment*
COMP5331	Database Architecture and Implementation	*Not for pre-enrollment*
COMP5621	Computer Networks	*Not for pre-enrollment*
COMP5711	Introduction to Advanced Algorithmic Techniques	*Not for pre-enrollment*
CORE1221/CIVL1221	Monitoring Changing Climate from Space	
CORE1222/CIVL1222	Big Data for Smarter Cities	
CORE1233/COMP1943	Creative Sound Design	
CORE1234/COMP1944	Artificial Intelligence Ethics	
ELEC1010	Electronic and Information Technology	
ELEC1100	Introduction to Electro-Robot Design	
ELEC1200	A System View of Communications: from Signals to Packets	
ELEC2100	Signals and Systems	
ELEC2350	Introduction to Computer Organization and Design	
ELEC2400	Electronic Circuits	
ELEC2420	Basic Electronics	
ELEC2600	Probability and Random Processes in Engineering	
ELEC3120	Computer Communication Networks	
ELEC3200	System Modeling, Analysis and Control	
ELEC3210	Machine Learning and Information Processing for Robotics	
ELEC3300	Introduction to Embedded Systems	
ELEC3310	Digital Fundamentals and System Design	
ELEC3400	Introduction to Integrated Circuits and Systems	
ELEC3500	Microelectronic Devices and Technology	
ELEC3810	data science in neural engineering	
ELEC4010O	UG special topic course in IC design	
ELEC4110	Digital Communications and Wireless Systems	
ELEC4220	Introduction to Robotics: From Mobile Robots to Manipulators	
ELEC4240	Deep Learning in Computer Vision	
ELEC4320	FPGA-based Design: From Theory to Practice	
ELEC4410	CMOS VLSI Design	
ELEC4420	Analogue Integrated Circuits Design and Analysis	
ELEC4620	Photonics and Optical Communications	
ELEC4810	Introduction to Biosensors and Bioinstrumentation	
ELEC4820	Medical Imaging	
IEDA2010	Introduction of Industrial Engineering and Decision Analytics	
IEDA2520	Probability for Engineers	
IEDA3010	Prescriptive Analytics	
IEDA3130	Ergonomics and Safety Management	
IEDA3230	Engineering Economics and Accounting	
IEDA3250	Stochastic Models	
IEDA3300	Industrial Data Systems	
IEDA3302	E-Commerce Technology and Applications	
IEDA3330	Introduction to Financial Engineering	
IEDA3410	Routing and Fleet Management	
IEDA4410	Data Driven Supply Chain Management	
IEDA4420	Dynamic Pricing and Revenue Optimization	
IEDA4510	System Risk Management	

IEDA4520	Numerical Methods for Financial Engineering	
ISDN1001	Introduction to Integrative Systems and Design	
ISDN1002	Redefining Problems for the Real Needs	
ISDN1004	Sketching	
ISDN2200	Systems Thinking and Design	
ISDN2300	Introduction to 3D Design	
ISDN2603	Materials, Shape and Design	
ISDN3200	Graphic Communication	
MECH1902	Energy System in a Sustainable World	
MECH1906	Mechanical Engineering for Modern Life	
MECH1907	Introduction to Aerospace Engineering	
MECH2020	Statics and Dynamics	
MECH2310	Thermodynamics	
MECH3030	Mechanisms of Machinery	
MECH3310	Heat Transfer	
MECH3400	Introduction to Composite Materials	
MECH3420	Engineering Materials II	
MECH3610	Control Principles	
MECH3640	Aerodynamics	
MECH3650	Aircraft Structural Analysis	
MECH3670	Aircraft Performance and Stability	
MECH3710	Manufacturing Processes and Systems	
MECH4360	Introduction to Intelligent Building	
MECH4720	Introduction to Precision Engineering	
MECH4750	Mechanical Vibration	

Last update: 26 June 2023