

# ECE 2024/2025 GRADUATE COURSE LIST

## Fall 2024

Course ID	Description	Instructor
6CL4	Control System Design	Dr. Thia Kirubarajan
6DK4	Computer Communication Networks	Dr. Dongmei Zhao
6DM4	Computer Architecture	Dr. Mohamad Hassan
6EK4	Microelectronics	Dr. Jamal Deen
6FJ4	Devices and Antennas for Wireless Systems	Dr. Natalia Nikolova
6PK4	Power Electronics	Dr. Phil Kollmeyer
6PM4	Electrical Power Systems	Dr. Babak Nahid
6SP4	High-Performance Programming	Dr. Kazem Cheshmi
6TK4	Digital Communication Systems	Dr. Jun Chen
6TL4	Digital Signal Processing	Dr. Thamas Tharmarasa
701	M.Eng. Project	various
712	Matrix Computations in Signal Processing	Dr. Jim Reilly
716	Switched Reluctance Machines	Dr. Berker Bilgin
718	Special Topics in Computation	Dr. Kazem Cheshmi
723	Information Theory and Coding	Dr. Jun Chen
722	Advanced Computer Architecture	Dr. Mohamad Hassan
729	Resource Management and Performance Analysis in Wireless Communication Networks	Dr. Dongmei Zhao
740	Semiconductor Device Theory and Modeling	Dr. Yaser Haddara
742	Sensor Technology	Dr. Jamal Deen
748	Special Topics: Microelectronics Advanced Analog Integrated Circuits	Dr. Mohamed Balla Elamien
749	Special Topics: Microelectronics Computer-Aided Digital Integrated Circuit Design	Dr. Ameer Abdelhadi
754	Modelling and Simulation of Photonic Devices and Circuits I	Dr. Xun Li

Effective September 12, 2024

Courses subject to change.

Please refer to the [Academic Calendar](#) for course descriptions.

Date and times will be available closer to start of term.



Electrical & Computer  
Engineering

Course ID	Description	Instructor
769	Special Topics Signal Processing	Dr. Ian Bruce
771	Algorithms for Parameter and State Estimation	Dr. Thia Kirubarajan
780	Medical Image Systems II	Dr. Michael Noseworthy
790	Communication Skills	Drs Tim Davidson/ Mosche Schwartz
792	Advanced Communication Skills	Drs Tim Davidson/ Mosche Schwartz

# ECE 2024/2025 GRADUATE COURSE LIST

## Winter 2025

Course ID	Description	Instructor
6BB3	Cellular Bioelectricity	Dr. Kanwarpal Singh
6DN4	Advanced Internet Communications	Dr. Dongmei Zhao
6DS4	Embedded Systems	Dr. Mohamad Hassan
6PN4	Electric Motor Drives	Dr. Berker Bilgin
6TN4	Image Processing	Dr. Xiaolin Wu
701	M.Eng. Project	Multiple
710	Engineering Optimization	Dr. Tim Davidson
720	Power Converter Systems	Dr. Mehdi Narimani
726	Machine Learning: Intro	Dr. Sorina Dumitrescu
730	Control of Adjustable Speeds	Dr. Babak Nahid
736	3D Image Processing and Computer Vision	Dr. Shahram Shirani
738	Special Topics in Communication Systems & Networks	Dr. Moshe Schwartz
746	Analysis and Design of RF ICs for Communications	Dr. James Chen
756	Design of Lightwave Communication Systems & Networks	Dr. Shiva Jumar
759	Special Topics in Microwaves and Photonics Advanced Optical Wireless Communications	Dr. Telex Ngatched
767	Multitarget Tracking and Multi-sensor Information Fusion	Dr. Thamas Tharmarasa
776	Electromagnetic Scattering from Random Media	Dr. Tim Field
778	Intro To Nanotechnology	Dr. Matiar Howlader
789	Special Topics in Power Battery Testing, Modeling and Pack Design	Dr. Philip Kollmeyer
790	Communication Skills	Drs Tim Davidson/Moshe Schwartz
792	Advanced Communication Skills	Drs Tim Davidson/Moshe Schwartz
798	Biomed Signal Modeling and Processing	Dr. Aleksandar Jeremic