

Department of Electrical and Computer Engineering
Graduate Course Listings for Fall 2025 and Winter 2026 (Updated Jan 5, 2026)

COURSE	DESCRIPTION	TERM	INSTRUCTOR
ECE 6CL4	Control Systems Design	Fall 2025	S. Sirouspour
ECE 6DK4	Computer Communication Networks	Fall 2025	D. Zhao
ECE 6DM4	Computer Architecture	Fall 2025	W. Chen
ECE 6FJ4	Devices and Antennas for Wireless Systems	Fall 2025	N. Nikolova
ECE 6PM4	Electrical Power Systems	Fall 2025	A. Mohammad Alikhani
ECE 6SP4	High Performance Programming	Fall 2025	K. Cheshmi
ECE 6TK4	Digital Communication Systems	Fall 2025	J. Chen
ECE 6TL4	Digital Signal Processing	Fall 2025	R. Tharmarasa
ECE 6BB3	Cellular Bioelectricity	Winter 2026	K. Singh
ECE 6DN4	Advanced Internet Communications	Winter 2026	D. Zhao
ECE 6DS4	Embedded Systems	Winter 2026	A. Abbasi
ECE 6PN4	Electric Motor Drives	Winter 2026	B. Bilgin
ECE 6TN4	Image Processing	Winter 2026	G. Sharma
<i>ECE 707 / CSE 731 *</i>	Linear Systems	Fall 2025	T. Kirubarajan
<i>ECE 712 / BIOMED 712 *</i>	Matrix Computations in Signal Processing	Fall 2025	J. Reilly
ECE 716	Switched Reluctance Machines	Fall 2025	B. Bilgin
ECE 718	Special Topics in Computation	Fall 2025	K. Cheshmi
ECE 719	Special Topics in Computation	Fall 2025	A. Abdelhadi
<i>ECE 720 / MECHENG 720 *</i>	Power Converter Systems	Fall 2025	M. Narimani
ECE 723	Information Theory and Coding	Fall 2025	J. Chen
ECE 729	Resource Management and Performance Analysis in Wireless Communication Networks	Fall 2025	D. Zhao
ECE 738	Special Topics in Communication Systems and Networks	Fall 2025	K. Singh
<i>ECE 740 / ENGPYS 740 *</i>	Semiconductor Device Theory and Modeling	Fall 2025	Y. Haddara
ECE 743	Coding Theory	Fall 2025	M. Schwartz
ECE 748	Special Topics in Microelectronics	Fall 2025	M. Elamien
<i>ECE 753 / CSE 753 *</i>	Modern Antennas in Wireless Telecommunications	Fall 2025	N. Nikolova
ECE 754	Modeling And Simulation Of Photonic Devices	Fall 2025	X. Li
<i>ECE 771 / CSE 791 / MECHENG 771 *</i>	Algorithms for Parameter and State Estimation	Fall 2025	T. Kirubarajan
<i>ECE 780 / BIOMED 702 *</i>	Medical Imaging Systems II	Fall 2025	M. Noseworthy
ECE 790	Foundational Communication Skills for Graduate Research in Electrical and Computer Engineering	Fall 2025	T. Davidson
<i>ECE 710 / CSE 710 / MECHENG716 *</i>	Engineering Optimization	Winter 2026	T. Davidson
<i>ECE 724 / MECHENG 721 *</i>	Modeling, Control and Design of Electrified Vehicles	Winter 2026	J. Bauman
ECE 726	Machine Learning: An Introduction	Winter 2026	S. Dumitrescu
ECE 730	Control of Adjustable Speed Drives	Winter 2026	B. Nahid-Mobarakeh
ECE 744	System-on-a-Chip (SOC) Design and Test: Part I - Methods	Winter 2026	N. Nicolici
ECE 749	Computer-Aided Digital Integrated Circuit Design	Winter 2026	A. Abdelhadi
ECE 756	Design of Lightwave Communication Systems and Networks	Winter 2026	S. Kumar
ECE 759	Special Topics in Microwaves and Photonics	Winter 2026	T. Ngatched
ECE 767	Multitarget Tracking and Multisensor Information Fusion	Winter 2026	R. Tharmarasa
ECE 776	Electromagnetic Scattering from Random Media	Winter 2026	T. Field
ECE 778	Introduction to Nanotechnology	Winter 2026	M. Howlader
ECE 790	Foundational Communication Skills for Graduate Research in Electrical and Computer Engineering	Winter 2026	T. Davidson
ECE 792	Advanced Communication Skills for Graduate Research in Electrical and Computer Engineering	Winter 2026	T. Davidson
<i>ECE 796 / BIOMED 796 / CSE 796 *</i>	Models of the Neuron	Winter 2026	I. Bruce
<i>ECE 798 / MECHENG 798</i>	Biomedical Signal Modeling and Processing	Winter 2026	A. Jeremic

**cross-listed courses*

All courses are subject to enrollment minimums and instructor availability, please refer to Mosaic for the most up-to-date information
Please contact Samantha Leung, Graduate Administrator at ece_grad@mcmaster.ca for any questions