



The Association of Professional
Engineers and Geoscientists of Alberta

**ELECTRICAL ENGINEERING
COURSE EQUIVALENTS
2016 EDITION**

<i>University of Alberta</i>		<i>University of Calgary</i>	
16-ELEC-A1	Circuits		
ECE 202	Electrical Circuits I	ENGG 225	Fundamentals of Electrical Circuits and Machines
&		&	
ECE 203	Electrical Circuits II	ENEL 343	Electrical Circuits II
16-ELEC-A2	Systems and Control		
ECE 240	Continuous Time Signals & Systems	ENEL 327	Signals and Transforms
&		&	
ECE 360	Control Systems I	ENEL 441	Control Systems I
16-ELEC-A3	Signals and Communications		
ECE 240	Continuous Time Signals & Systems	ENEL 327	Signals and Transforms
&		&	
ECE 380	Introduction to Communication Systems	ENEL 471	Analog Communications
16-ELEC-A4	Digital Systems and Computers		
ECE 210	Introductions to Digital Logic Design	ENEL 353	Digital Circuits
&		&	
ECE 212	Introduction to Microprocessors	ENEL 453	Digital Systems Design
16-ELEC-A5	Electronics		
ECE 302	Electronic Devices	ENEL 469	Analog Electronic Circuits
&		&	
ECE 303	Analog Electronics	ENCM 467	Digital Electronics Circuits
&			
ECE 304	Digital Electronics		
16-ELEC-A6	Power Systems and Machines		
ECE 330	Introduction to Power Engineering	ENEL 487	Electrical Energy Systems Engineering
&		&	
ECE 332	Electrical Machines	ENEL 489	Modelling and Control of Electric Machines and Drives
16-ELEC-A7	Electromagnetics		
ECE 370	Engineering Electromagnetics I	ENEL 476	Electromagnetic Waves and Applications
&			
ECE 476	Engineering Electromagnetics II		
16-ELEC-B1	Digital Signal Processing		
ECE 340	Discrete Time signals and Systems	ENEL 593	Digital Filters
&			
ECE 440	Digital Signal Processing of Images		
&			
ECE 442	Introduction to Multimedia Signal Processing		

16-ELEC-B2 Advancewd Control Systems

ECE 460	Control Systems II	ENEL 541	Control Systems II
&			
ECE 464	Medical Robotics and Computer-Integrated Intervention		

16-ELEC-B3 Digital Communications Systems

ECE 485	Digital Communications	ENEL 529	Wireless Communication Systems
&		&	
ECE 486	Wireless Communications	ENEL 571	Didgital Communications

16-ELEC-B4 Information Technology Networks

ECE 487	Data Communications Networks	ENEL 529	Wireless Communications Systems
		&	
		ENEL 573	Telecommunications and Computer Communications

16-ELEC-B5 Advanced Electronics

ECE 402	RF Communication Circuits	ENEL 559	Analog Filter Design
&		&	
ECE 478	Microwave Circuits	ENEL 569	Electronic Systems and Applications

16-ELEC-B6 Integrated Circuit Engineering

ECE 403	Integrated Circuit Design	ENEL 565	Digital Integrated Electronics
		&	
		ENEL 567	CMOS Analog Circuit Design

16-ELEC-B7 Power Systems Engineering

ECE 430	Power Systems Analysis	ENEL 586	Power System Protection
&		&	
ECE 433	Power System Stability and Transients	ENEL 587	Power Sysetm Analysis

16-ELEC-B8 Power Electronics and Drives

ECE 401	Power Electronics	ENEL 489	Modelling and Control of Electric Machines and Drives
&		&	
ECE 432	Variable Speed Drives	ENEL 585	Introduction to Power Electronics

16-ELEC-B9 Electromarnetic Fields, Transmission Lines, Antennas and Radiaiton

ECE 478	Microwave Circuit	ENEL 574	Microwave Engineering
		ENEL 575	Radio-frequency and Microwave Passive Circuits

16-ELEC-B10 Electro-Optical Engineering

ECE 471	Photonics I		<i>No Course Equivalent Offered</i>
&			
ECE 472	Photonics II		

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