The Association of Professional Engineers and Geoscientists of Alberta

COMPUTER ENGINEERING
COURSE EQUIVALENTS
2017 EDITION

University of Alberta		University of Calgary	
17-Comp-A1	**Electronics**		
ECE 302 &	Electronic Devices	ENEL 361 &	Electronic Devices and Circuits
ECE 304	Digital Electronics	ENCM 467	Digital Electronic Circuits
17-Comp-A2	**Digital Systems Design**		
ECE 315	Computer Interfacing	ENEL 453	Digital Systems Design
17-Comp-A3	**Computer Architecture**		
ECE 311	Computer Organization and Architecture	ENCM 369	Computer Organization
17-Comp-A4	**Program Design and Data Structures**		
ECE 325	Object-Oriented Software Design	ENSF 338	Practical Data Structures and Algorithms
17-Comp-A5	**Operating Systems**		
CMPUT 379	Operating System Concepts	ENSF 461	Applied Operating Systems
17-Comp-A6	**Software Engineering**		
CMPUT 301	Introduction to Software Engineering	SENG 300	Introduction to Software Engineering
17-Comp-B1	**Advanced Computer Architecture**		
	No Course Equivalent Offerred	ENCM 501	Principles of Computer Architecture
17-Comp-B2	**Principles of VSLI**		
ECE 403	Integrated Circuit Design	ENEL 567	CMOS VLSI Engineering
17-Comp-B3	**Databases and File Systems**		
CMPUT 291 &	Introduction to File and Database Management	CPSC 461 &	Information Structures
CMPUT 391	Database Management Systems	CPSC 471	Data Base Management
17-Comp-B4	**Computer Graphics**		
CMPUT 411	Introduction to Computer Graphics	CPSC 453	Introduction to Computer Graphics
17-Comp-B5	**Computer Communications**		
ECE 487	Data Communications Networks	CPSC 441	Computer Communications
17-Comp-B6	**Computer Control and Robotics**		
ECE 460 &	Control Systems II	ENEL 541 &	Control Systems II
ECE 464	Medical Robotics and Computer-Integrated Intervention	ENME 505	Robotics

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17-Comp-B7	**Digital Signal Processing**		
ECE 541	Digital Signal Processing	ENEL 593	Digital Filters
17-Comp-B8	**Computer Integrated Manufacturing**		
	No Course Equivalent Offered	ENMF 503	Computer-Aided Design and Manufacturing
17-Comp-B9	**Artificial Intelligence and Expert Systems**		
ECE 449	Intelligent Systems Engineering	ENEL 525	Machine Learning for Engineers
17-Comp-B10	**Distributed Systems**		
ECE 420	Parallel and Distributed Programming	CPSC 561	Introduction to Distributed Algorithms
17-Comp-B11	**Advanced Software Design**		
ECE 522	Software Construction, Verification and Evolution	CPSC 550	System Software Design and Development
17-Comp-B12	**Computer Security**		
ECE 422	Reliable and Secure Systems Design	SENG 521	Software Reliability and Software Quality
17-Comp-B13	**Mechatronic Design**		
	No Course Equivalent Offered	ENME 461	Foundations of Mechatronics

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