



The Association of Professional
Engineers and Geoscientists of Alberta

PRELIMINARY COURSE EQUIVALENTS 2020 EDITION

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BASIC STUDIES COURSE EQUIVALENTS 2004 EDITION

<i>University of Alberta</i>		<i>University of Calgary</i>	
20-PRELIM-1	Calculus		
MATH 100	Calculus I	MATH 275	Calculus for Engineers & Scientists
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MATH 101	Calculus II	MATH 277	Multivariable Calculus for Engineers and Scientists
20-PRELIM-2	Computing		
ENCMP 100	Computer Programming for Engineers	ENDG 233	Programming with Data
20-PRELIM-3	Physics		
EN PH 131	Mechanics	PHYS 259	Electricity & Magnetism
&		&	
PHYS 130	Wave Motion, Optics and Sound	PHYS 365	Acoustics, Optics and Modern Physics
20-PRELIM-4	Chemistry		
CHEM 105	Introductory to University Chemistry II	CHEM 209	General Chemistry for Engineers
04-BS-1	Mathematics		
MATH 102	Applied Linear Algebra	MATH 211	Linear Methods I
&		&	
MATH 215	Intermediate Calculus II	MATH 307	Differential Equations for Engineers
		&	
		MATH 309	Vector Calculus for Engineers
04-BS-2	Probability & Statistics		
STAT 235	Introductory Statistics for Engineering	ENGG 319	Probability and Statistics for Engineers
		OR	
		STATS 327	Statistics for the Physical and Environmental Sciences
		OR	
		ENEL 419	Probability and Random Variables
04-BS-3	Statics and Dynamics		
ENGG 130	Engineering Mechanics	ENGG 202	Engineering Statics
&		&	
MEC E 250	Engineering Mechanics II	ENGG 349	Engineering Mechanics II
04-BS-4	Electric Circuits and Power		
ECE 202	Electrical Circuits I	ENGG 225	Fundamentals of Electrical Circuits and Machines

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04-BS-5	Advanced Mathematics		
MATH 209	Calculus III	ENGG 407	Numerical Methods in Engineering
OR			
CMPUT 340	Introduction to Numerical Methods		
04-BS-6	Mechanics of Materials		
CIV E 270	Mechanics of Deformable Bodies	ENGG 317	Mechanics of Solids
04-BS-7	Mechanics of Fluids		
CIV E 330	Introduction to Fluid Mechanics	ENCH 331	Process Fluid Dynamics
OR		OR	
CH E 312	Fluid Mechanics	ENME 341	Fundamentals of Fluid Mechanics
OR			
MEC E 230	Introduction to Thermo-Fluid Sciences		
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MEC E 331	Fluid Mechanics I		
04-BS-8	Digital Logic Circuits		
ECE 210	Introduction to Digital Logic	ENEL 353	Digital Circuits
04-BS-9	Basic Electromagnetics		
ECE 370	Engineering Electromagnetics	ENEL 475	Electromagnetic Fields and Applications
OR			
PHYS 230	Electricity and Magnetism		
04-BS-10	Thermodynamics		
CH E 243	Engineering Thermodynamics	ENGG 311	Engineering Thermodynamics
04-BS-11	Properties of Materials		
MAT E 202	Material Science II	ENCI 413	Introduction to Civil Engineering Materials
		OR	
		ENME 421	Materials I
04-BS-12	Organic Chemistry		
CHEM 261	Organic Chemistry	CHEM 357	Industrial Organic Chemistry for Engineers
04-BS-13	Biology		
BIOL 108	Organisms in Their Environment	BIOL 205	The Organization and Diversity of Life
		&	
		BMEN 301	Introduction to Biomedical Engineering
04-BS-14	Geology		
EAS 210	Engineering Earth Science	GLGY 376	Geology, Engineering & the Environment
		OR	
		GLGY 377	Petroleum Engineering Geology
04-BS-15	Engineering Graphics		
CIV E 265	Engineering Drawing and Computer Graphics	ENME 339	Engineering Graphics and CAD
OR			
MEC E 265	Engineering Graphics and CAD		
04-BS-16	Discrete Mathematics		
	No Course Equivalent	MATH 271	Discrete Mathematics

Updated May 2026