

**APEGGA**

The Association of
Professional Engineers, Geologists
and Geophysicists of Alberta

PRELIMINARY & BASIC STUDIES COURSE EQUIVALENTS 1998 Edition

<i>University of Alberta</i>	<i>University of Calgary</i>	<i>Athabasca University</i>
98-PRELIM-1 Calculus		
MATH 100 Calculus I	AMAT 217 Calculus for Engineers & Scientists I	MATH 265 Introduction to Calculus &
MATH 101 Calculus II	&	MATH 266 Introduction to Calculus II
OR	AMAT 219 Calculus for Engineers II	
MATH 114 Elementary Calculus I	OR	
&	MATH 251 Calculus I	
MATH 115 Elementary Calculus II	&	
	Math 253 Calculus II	
98-PRELIM-2 Computing		
ENCMP 100 Computer Programming for Engineers	ENGG 233 Engineering Computation	
OR	&	
CMPUT 114 Introduction to Computing Science	ENGG 407 Numerical Methods in Engineering	
PLUS ONE OF:		
CIV E 295 Civil Engineering Analysis II		
OR		
CMPUT 340 Introduction to Numerical Methods		
OR		
CH E 474 Computational Methods in Chemical Engineering		
OR		
MAT E 390 Introduction to Process Simulation		
OR		
E E 231 Electrical Engineering Design		
OR		
MEC E 390 Computer Aided Engineering		

98-PRELIM-3 Physics

EN PH 131 Mechanics
OR
PHYS 102 Mechanics
&
PHYS 130 Wave Motion,
Optics and Sound
OR
PHYS 100 General Physics I

PHYS 259 Electricity and
Magnetism
&
PHYS 269 Acoustics, Optics and
Radiation

98-PRELIM-4 Chemistry

CHEM 101 Intro Univ Chem I
&
CHEM 102 Intro Univ Chem II
OR
CHEM 103 Intro Univ. Chem I
&
CHEM 105 Intro Univ Chem II

ENGG 201 Behaviour of Liquids,
Gases and Solids
&
CHEM 209 General Chemistry for
Engineers

CHEM 217 Chemical Principles
&
CHEM 218 Chemical Principles II

98-BS-1 Mathematics

MATH 102
&
MATH 214
&
MATH 215

AMAT 307 Differential Equations
for Engineers
&
AMAT 309 Vector Calculus for
Engineers

98-BS-2 Probability and Statistics

STAT 141 Introduction to
Statistics
OR
STAT 151 Introduction to
Applied Statistics I

ENGG 319 Probability and
Statistics for Engineers

MATH 215 Introduction to Statistics

98-BS-3 Statics and Dynamics

EN PH 131
&
ENGG 130
&
MEC E 250

ENGG 203 Statics
&
ENGG 249 Dynamics

OR
ENGG 205 Engineering Mechanics I

98-BS-4	Electric Circuits and Power		
EE 239	Fundamentals of Electrical Eng	ENGG 325	Electric Circuits and Systems
EE 305	Fundamentals of Electrical Eng	OR	
		ENEL 329	Circuits for Software Engineers
98-BS-5	Advanced Mathematics		
MATH 300	Advanced Boundary Value Problems	ENGG 407	Numerical Methods in Engineering
&		&	
EE 231	Programming and Numerical Methods for Elec Eng	AMAT 407	Partial Differential Equations for Engineers
OR		OR	
MATH 280	Numerical Methods I	AMAT 415	Mathematical Methods
98-BS- 6	Mechanics of Materials		
CIV E 270	Mechanics of Deformable Bodies	ENGG 317	Mechanics of Solids
98-BS-7	Mechanics of Fluids		
CIV E 330	Introduction to Fluid Mechanics	ENCH 331	Process Fluid Dynamics
		OR	
CH E 312	Fluid Mechanics	ENME 341	Fundamentals of Fluid Mechanics
98-BS-8	Digital Logic Circuits		
EE 280	Intro to Digital Electronics	ENEL 353	Digital Circuit Design
98-BS-9	Basic Electromagnetics		
EE 317	Electromagnetics for Comp. Engineers	PHYS 259	Electricity and Magnetism
OR		&	
EE 315	Engineering Electromagnetics I	ENEL 475	Fundamentals of Electromagnetic Fields
OR			
EE 316	Engineering Electromagnetics II		
98-BS-10	Thermodynamics		
CH E 243	Engineering Thermodynamics	ENGG 311	Engineering Thermodynamics

98-BS-11 Properties of Materials

MAT E 252 Material Science II

ENCI 413 Introduction to Civil Eng
Materials**OR**

ENME 421 Materials I

98-BS-12 Organic Chemistry

CHEM 261 Organic Chemistry

CHEM 357 Industrial Organic
Chemistry for
Engineers**OR**CHEM 354 Organic Chemistry for
Chemists**98-BS-13 Biology**BIOL 108 Organisms in Their
EnvironmentBIOL 231 Introduction to Biology I
&
BIOL 233 Introduction to
Biology II**98-BS-14 Geology**EAS 210 Engineering Earth
ScienceGLGY 471 Geology, Engineering &
the Environment**Revised September 2003**