



The Association of Professional
Engineers and Geoscientists of Alberta

PRELIMINARY COURSE EQUIVALENTS 2020 EDITION

&
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 |
| & | | & | |
| MATH 101 | Calculus II | MATH 277 | Multivariable Calculus for Engineers and Scientists |
| 20-PRELIM-2 | Computing | | |
| ENCOMP 100 | Computer Programming for Engineers | ENDG 233 | Computing for Engineers |
| 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 103 | Introductory University Chemistry I | CHEM 209 | General Chemistry for Engineers |
| 04-BS-1 | Mathematics | | |
| MATH 102 | Applied Linear Algebra | MATH 211 | Linear Methods I |
| & | | & | |
| MATH 201 | Differential Equations | MATH 375 | Differential Equations for Engineers and Scientists |
| 04-BS-2 | Probability & Statistics | | |
| STAT 141 | Introduction to Statistics | ENGG 319 | Probability and Statistics for Engineers |
| OR | | OR | |
| STAT 151 | Introduction to Applied Statistics | STATS 327 | Statistics for the Physical and Environmental Sciences |
| 04-BS-3 | Statics and Dynamics | | |
| ENGG 130 | Engineering Mechanics | ENGG 202 | Engineering Statics |
| & | | & | |
| MEC E 250 | Engineering Mechanics II | ENGG 349 | Dynamics |
| 04-BS-4 | Electric Circuits and Power | | |
| ECE 209 | Fundamentals of Electrical Engineering | ENGG 225 | Fundamentals of Electrical Circuits and Machines |
| 04-BS-5 | Advanced Mathematics | | |
| MATH 209 | Calculus III | ENGG 407 | Numerical Methods in Engineering |
| & | | | |
| 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 |
| 04-BS-8 | Digital Logic Circuits | | |
| ECE 210 | Introduction to Digital Logic Design | ENEL 353 | Digital Circuits |
| 04-BS-9 | Basic Electromagnetics | | |
| ECE 370 | Engineering Electromagnetics I | ENEL 475 | Electromagnetic Fields and Applications |
| 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 |
| 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 |

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