The Association of Professional Engineers, Geologists and Geophysicists of Alberta

APEGGA

# *ELECTRICAL ENGINEERING COURSE EQUIVALENTS*

1998 Edition

| ***University of Alberta*** | | ***University of Calgary*** | |
|---|---|---|---|
| **98-ELEC-A1** | **Circuits, Signals and Systems** | | |
| EE 240 | Electrical Circuits I | ENEL 341 | Electric Circuits I |
| **OR** | | & | |
| EE 239 | Fundamentals of Electrical Engineering | ENEL 343 | Electric Circuits II |
| & | | | |
| EE 250 | Electric Circuits II | | |
| **98-ELEC-A2** | **Control** | | |
| EE 458 | Control Systems I | ENEL 441 | Control Systems I |
| **98-ELEC-A3** | **Communications** | | |
| EE 390 | Introduction to Communication Systems | ENEL 471 | Analog Communications |
| & | | | |
| EE 335 | Signals and Transform Methods | | |
| **98-ELEC-A4** | **Digital Systems and Computers** | | |
| EE 280 | Introduction to Digital Electronics | ENEL 353 | Digital System Design |
| & | | & | |
| EE 380 | Introduction to Microprocessors | ENEL 415 | Assembly Language Programming and Interfacing |
| **98-ELEC-A5** | **Electronics** | | |
| EE 340 | Electronics: Active Devices | ENEL 463 | Electronic Devices and Circuits |
| & | | | |
| EE 350 | Electronics: Analog Circuits | & | |
| & | | ENEL 465 | Analog Integrated Electronics |
| EE 570 | Large Signal & Pulse Circuits | | |
| **98-ELEC-A6** | **Electromagnetic Energy Conversion** | | |
| EE 330 | Introduction to Power Engineering | ENEL 489 | Electric Machines: Steady State |
| EE 332 | Electric Machines | | |

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| **98-ELEC-A7** | **Electromagnetics** | | |
| EE 315 | Engineering Electromagnetics I | ENEL 475 | Fundamentals of Electromagnetic Fields |
| & | | & | |
| EE 316 | Engineering Electromagnetics II | ENEL 575 | Microwave Circuits and Antennas |
| **98-ELEC-B1** | **Advanced Circuits Analysis and Design** | | |
| EE 335 | Signals and Transform Methods | | No Course Equivalent |
| & | | | |
| EE 550 | Design with Operational Amplifiers | | |
| & | | | |
| EE 597 | Microwave Engineering | | |
| **98-ELEC-B2** | **Digital Signal Processing** | | |
| EE 438 | Introduction to Signal Theory and Processing | ENEL 593 | Digital Filters |
| & | | | |
| EE 539 | Digital Filter Design and Implementation | | |
| **98-ELEC-B3** | **Advanced Control Systems** | | |
| EE 561 | Control Systems II | ENEL 541 | Control Systems II |
| **98-ELEC-B4** | **Communications Systems** | | |
| EE 588 | Communications in Noise | ENEL 571 | Digital Communications |
| & | | | |
| EE 687 | Transmission Media and Systems | | |
| **98-ELEC-B5** | **Advanced Electronics** | | |
| EE 571 | RF Communication Circuits | ENEL 465 | Analog Integrated Electronics |
| & | | & | |
| EE 597 | Microwave Engineering | ENEL 569 | Electronics for Instrumentation |
| & | | | |
| EE 632 | Design with Analogue Integrated Circuits | | |
| **98-ELEC-B6** | **Integrated Circuit Engineering** | | |
| EE 552 | High Level Digital ASIC Design Using CAD | ENEL 567 | CMOS VLSI Engineering |
| & | | | |
| EE 653 | Integrated Circuit Design | | |

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| **98-ELEC-B7** | **Power Systems Engineering** | | |
| EE 521<br>&<br>EE 525 | Power Systems I<br><br>Power Systems II | ENEL 587 | Power Systems: Steady-State |
| **98-ELEC-B8** | **Switched Mode Power Supply Design** | | |
| EE 524 | Switched Mode Power Supplies | | No Course Equivalent |
| **98-ELEC-B9** | **Power Electronics and Drives** | | |
| EE 530 | Power Electronics | ENEL 585 | Introduction to Power Electronics |
| **98-ELEC-B10** | **Electromagnetic Fields, Transmission Lines, Antennas and Radiation** | | |
| EE 591<br>&<br>EE 597 | Antennas and Propagation<br><br>Microwave Engineering | ENEL 575 | Microwave Circuits and Antennas |
| **98-ELEC-B11** | **Electro-Optical Engineering** | | |
| EE 586 | Introduction to Optical Fibre Communications | ENEL 579 | Optical Fibre Communications |

**Revised April 2005**