

2005/2006 CURRICULUM - COMPUTER ENGINEERING

ENTRY FROM CEGEP (Total Credits = 111)

First (Fall) Semester (TOTAL = 15 cr)

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|-----------------|---|---|
| CIVE 281 | Analytical Mechanics | (3 cr, C - MATH 260 or MATH 262, MATH 261 or MATH 263.) |
| COMP 202 | Introduction to Computing 1 | (3 cr) |
| MATH 262 | Intermediate Calculus | (3 cr, P-MATH 141, MATH 133 or equivalent.) |
| MATH 263 | Ord.Differential Eqns. & Linear Alg. | (3 cr, C - MATH 262 or MATH 260) |
| MIME 310 | Engineering Economy | (3 cr) |

Third (Fall) Semester (TOTAL = 17 cr)

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|-----------------|--|----------------------|
| COMP 302 | Prog. Languages & Paradigms | (3 cr, P - COMP 250) |
| ECSE 210 | Circuit Analysis | (3 cr, P - ECSE 200) |
| ECSE 291 | Electrical Measurements Lab | (2 cr, C - ECSE 210) |
| ECSE 321 | Intro. to Software Engineering | |

Second (Winter) Semester (TOTAL = 17 cr)

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|-----------------|--|--|
| COMP 250 | Introduction to Computer Science | (3 cr) |
| ECSE 200 | Fundamentals of Elect Eng | (3 cr, C - MATH 261 or MATH 263 or MATH 325) |
| ECSE 221 | Intro. to Computer Engineering | (3 cr, P - COMP 202) |
| EDEC 206 | Communication in Engineering | (3 cr) |
| MATH 264 | Advanced Calculus | (3 cr, P - MATH 260 or MATH 262 or MATH 151 or MATH 152 or equivalent) |
| MIME 221 | Engineering Professional Practice | (2 cr) |

Fourth (Winter) Semester (TOTAL = 17 cr)

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|-----------------|------------------------------------|---|
| ECSE 303 | Signals & Systems 1 | (3 cr, P - ECSE 210, MATH 270 or 271/247; C - MATH 381/249) |
| ECSE 323 | Digital Systems Design | (5 cr, P - EDEC 206, ECSE 221 & ECSE 291) |
| ECSE 330 | Introduction to Electronics | (3 cr, P - ECSE 210) |

ET .92 -0.0494 Tw (Engin17 Tc 0.0771 Tw (EDEC 206) Tj 40.92 TD /F0 8.52

TECHNICAL COMPLEMENTARY COURSES - COMPUTER ENGINEERING PROGRAM

Technical Complementaries (3 courses) 9 credits

Students following the Computer Engineering program should take 3 courses (9 credits) from the following list. It is possible that not all the courses listed will be offered in any given year. Please refer to the up-to-date course assignments before selecting any course. Permission will not be granted to take Technical Complementary courses that are not on this list.

Computer Engineering Technical Complementaries:

| | | | |
|----------|--|--|-----------|
| ECSE 404 | Control Systems | A,B (3 cr, C - ECSE 304) | |
| ECSE 411 | Communications Systems 1 | A (3 cr, P - ECSE 304 & ECSE 305) | |
| ECSE 412 | Discrete-Time Signal Processing | A,B (3 cr, P - ECSE 304) | |
| ECSE 414 | Intro. to Telecom Networks | A (3 cr, P - ECSE 304, ECSE 322) | OR |
| COMP 535 | Computer Networks 1 | A (3 cr, P - ECSE 427) | |
| ECSE 420 | Parallel Computing | (3 cr, P - ECSE 427) | |
| ECSE 421 | Embedded Systems | B (3 cr, P - ECSE 322, ECSE 323) | |
| ECSE 422 | Fault Tolerant Computing | (3 cr, P - ECSE 322) | |
| ECSE 424 | Human-Computer Interaction | B (3 cr, P - ECSE 322) | |
| ECSE 428 | Software Engineering Practice | B (3 cr, P - ECSE 321 or COMP 335) | |
| ECSE 429 | Software Validation | (3 cr, P - ECSE 321) | |
| ECSE 431 | Introduction to VLSI CAD. | A (3 cr, P - ECSE 323 & ECSE 330) | |
| ECSE 436 | Signal Processing Hardware | (3 cr, P - ECSE 322, ECSE 323 & ECSE 304) | |
| ECSE 450 | Electromagnetic Compatability (EMC) | B (3cr, P- ECSE 221, ECSE 334, ECSE 352 or ECSE 353) | |
| ECSE 526 | Artificial Intelligence | B (3 cr, P - ECSE 322) | |
| ECSE 530 | Logic Synthesis | B (3 cr, P - ECSE 323) | |
| ECSE 531 | Real-Time Systems | (3 cr, P - ECSE 322 & ECSE 323) | |
| ECSE 532 | Computer Graphics | A (3 cr, P - ECSE 322) | |
| ECSE 548 | Introduction to VLSI Systems | A (3 cr, P - ECSE 323 & ECSE 334) | |
| COMP 420 | Files & Databases | A (3 cr, P - COMP 302) | |
| COMP 431 | Algorithms for Engineers | (3 cr) | |
| COMP 575 | Fundamentals of Distributed Algorithms | B (3 cr, P - ECSE 427) | |

Laboratory Complementary Courses - Computer Engineering Program:

| | | |
|----------|-------------------------------------|--|
| ECSE 431 | Introduction to VLSI CAD. | A (3 cr, P - ECSE 323 & ECSE 330) |
| ECSE 435 | Mixed Signal Test Techniques | B (3 cr, P - ECSE 304 & ECSE 334) |
| ECSE 436 | Signal Processing Hardware | (3 cr, P - ECSE 322, ECSE 323 & ECSE 304) |
| ECSE 487 | Computer Architecture Laboratory | A,B (2 cr, P - EDEC 206; C- ECSE 425 or ECSE 525) |
| ECSE 489 | Telecommunication Network Laborator | B (2 cr, P - EDEC 206; C - ECSE 414) |
| ECSE 490 | Digital Signal Processing Lab | A,B (2 cr, P - ECSE 291 & EDEC 206; C- ECSE 412 or ECSE 512) |
| ECSE 491 | Communications Systems Lab | A,B (2 cr, P - EDEC 206, ECSE 291;C- ECSE 411 or ECSE 511) |
| ECSE 493 | Control & Robotics Lab | B (2 cr, P - EDEC 206 & ECSE 291;C- ECSE 404 or ECSE 502) |

Revised December 2005