### Software Engineering Program

**First Year**
- **FALL**
  - **ECOR 1053**: Fundamentals of Engineering II
  - **ECOR 1051**: Fundamentals of Engineering I
  - **MATH 1004**: Calculus for Eng. Students
  - **CHEM 1101**: Chemistry for Engineering Students
  - **PHYS 1004**: Introductory Electromagnetism & Wave Motion
  - **Elective**: Basic Science Elective

- **WINTER**
  - **ECOR 1054**: Fundamentals of Engineering IV
  - **ECOR 1052**: Fundamentals of Engineering II
  - **MATH 1104**: Linear Algebra for Eng. Students
  - **Elective**: Complementary Studies Elective

**Second Year**
- **FALL**
  - **MATH 1005**: Differential Equations and Infinite Series for Eng. Students
  - **ECOR**: Fundamentals of Engineering IV
  - **SYSC 2006**: Introduction to Digital Systems
  - **COMP 1805**: Discrete Structures I
  - **CCDP 2100**: Communication Skills for Eng. Students

- **WINTER**
  - **SYSC 2100**: Algorithms and Data Structures
  - **COMP 2804**: Digital Systems II
  - **ECOR**: Fundamentals of Engineering IV
  - **Elective**: Complementary Studies Elective

**Third Year**
- **FALL**
  - **SYSC 2004**: 0.0 Software Development
  - **SYSC 2100**: Algorithms and Data Structures (note a)
  - **SYSC 3110**: Software Project Design
  - **SYSC 3120**: Software Requirements Engineering
  - **SYSC 3310**: Computer Organization & Architecture

- **WINTER**
  - **SYSC 3200**: Operating Systems (note a)
  - **SYSC 3303**: Real-Time Concurrent Systems
  - **SYSC 4001**: Database Management Systems (note a)
  - **Elective**: Engineering Elective (note c)

**Fourth Year**
- **FALL**
  - **SYSC 3101**: Programming Languages
  - **SYSC 4106**: Software Product Management
  - **SYSC 4120**: Software Architecture and Design
  - **SYSC 4806**: Software Engineering Lab

- **WINTER**
  - **SYSC 4101**: Software Validation
  - **SYSC 4810**: Introduction to Network and Software Security
  - **Elective**: Engineering Elective (note c)

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**Notes:**
- **a**: Requires C- (C minus) grade or better in SYSC 2004.
- **b**: Requires C- (C minus) grade or better in COMP 1805.
- **c**: 1.5 credits from the list in note (c) or COMP 3022, COMP 3008, COMP 3400, COMP 3501, COMP 3801, COMP 3803, COMP 3804, COMP 4000, COMP 4002, COMP 4003, COMP 4009, COMP 4102, COMP 4106, COMP 4109 or COMP 4111.

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**Students wanting to register in 2nd Year Status courses must complete all first year Science, Mathematics and Engineering (including a C- (C minus) grade or better in ECOR 1051, 1052, 1053 and 1054).**

**Students must complete all 1st, 2nd and 3.5 credits of 3rd year (with the exception of Complementary Studies Electives) to enroll in SYSC 4907 (Design Project).**