Program Map

	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	FALL	WINTER	FALL	WINTER	FALL	WINTER	FALL	WINTER

Course Boxes

MATH 1004 – Calculus for Eng. Students

MATH 1104 – Linear Algebra for Eng. Students

MATH 1005 – Differential Equations & Infinite Series for Eng. Students

MATH 2004 – Multivariable Calculus for Eng. Students

MATH 3705 – Mathematical Methods I

MECH 3002 – Machine Design & Practice

MAAE 4907 / ECOR 4907 – Engineering Design Project (note c) (1.0 credit) (4th)

CHEM 1001 – General Chemistry I

CHEM 1002 – General Chemistry II

MAAE 2101 – Engineering Dynamics (2nd)

MAAE 2001 – Engineering Graphical Design (2nd)

MAAE 3004 – Dynamics of Machinery

MECH 3710 – Biomaterials

MECH 4210 – Biomechanics (4th)

MECH 4013 – Biomedical Device Design

Elective – Complementary Studies Elective

PHYS 1004 – Introductory Electromagnetism & Wave Motion

MAAE 2400 – Thermodynamics & Heat Transfer (2nd)

MAAE 2202 – Mechanics of Solids I (2nd)

MAAE 3202 – Mechanics of Solids II (2nd)

MAAE 3500 – Feedback Control Systems

MECH 4406 – Heat Transfer (4th)

SYSC 4201 – Ethics, Research Methods & Standards for BME

Weeks 1-6

ECOR 1041 – Computation & Prog. (0.25 credit)

ECOR 1045 – Statics (0.25 credit)

ECOR 1043 – Circuits (0.25 credit)

ECOR 1047 – Visual Comm. (0.25 credit)

Weeks 7-12

ECOR 1042 – Data Management (0.25 credit)

ECOR 1046 – Mechanics (0.25 credit)

ECOR 1044 – Mechatronics (0.25 credit)

ECOR 1048 – Dynamics (0.25 credit)

MAAE 2700 – Engineering Materials (2nd)

MAAE 2300 – Fluid Mechanics I (2nd)

MECH 3310 – Biofluid Mechanics (2nd)

ELEC 3605 – Electrical Engineering (2nd)

Elective – Biomedical Elective (note a)

Elective – Biomedical Elective (note a)

ECOR 1055 – Introduction to Engineering Disciplines I (0.0 credit)

ECOR 1056 – Introduction to Engineering Disciplines II (0.0 credit)

BIOL 1103 – Foundations of Biology I

Elective – Complementary Studies Elective

SYSC 3610 – Biomedical Systems, Modeling & Control (2nd)

CCDP 2100 – Communication Skills for Eng. Students

Elective – Engineering Elective (note b)

ECOR 4995 – Professional Practice (note d) (4th)

ECOR 1057 – Engineering Profession (0.0 credit)

ECOR 2050 – Design & Analysis of Engineering Experiments (2nd)

ECOR 3800 – Engineering Economics (3rd)

ECOR 2995 Engineering Portfolio (note e) (0.0 credit)

*Arrow Legend

→ Required prerequisite

⇢ Concurrent prerequisite

Kindly note: this program map has been designed to ease course planning and registration for engineering students, information is accurate at the time this document is produced. Prerequisites, course titles, course offerings, and course schedule patterns are based on the academic year in which this map was prepared and are subject to change. Please contact EngAcadSupport@carleton.ca for inquiries regarding this program map.

Notes

Course Prerequisites and Year Status Requirements

The Faculty of Engineering and Design strictly upholds course prerequisites. Course prerequisites are found in the Undergraduate Calendar course descriptions, and are indicated by arrows* between courses in this program map.

Year status in Engineering prerequisites (as noted by 2nd, 3rd, or 4th above the course box) vary year to year, please carefully review requirements for your catalog year.

Academic Advising

Obtaining regular academic advising and support for course planning is essential for engineering students who are "off-pattern" from their program map. Contact your program advisor:

First year students (new and returning): ECORSupport@carleton.ca

Second year and higher students: maeadvising@cunet.carleton.ca

Notes

(a) 1.0 credits in BIOL 2005, BIOL 2201 or CHEM 2203 or any BIOL, BIOC or CHEM course with permission from the department.

(b) Elective can be taken in Winter term if required; 0.5 credits in MAAE, MECH or AERO course at the 4000-level or SYSC 4202 or SYSC 4203.

(c) Students must complete all first and second year courses, as well as 3.5 credits of third year courses (with the exception of Complementary Studies Elective) to enroll in MAAE 4907 or ECOR 4907 (Engineering Design Project).

(d) ECOR 4995 can be taken in Fall term, if required due to limited elective options in Fall term.

(e) Please review Engineering Portfolio submission and registration instructions. Students register for ECOR 2995 once 4th year status is achieved, either before or concurrent with ECOR 4995.

**Please run your audit after making any registration changes to verify they have been applied successfully