BIOMEDICAL & MECHANICAL ENGINEERING Updated: 30/03/2023 Catalog Year: 202330 **FIRST YEAR SECOND YEAR** THIRD YEAR **FOURTH YEAR** Notes **FALL WINTER FALL** WINTER **FALL WINTER FALL** WINTER Course Prerequisites and Year Status Requirements The Faculty of Engineering and Design strictly upholds **MATH 1005 MATH 2004 MATH 1004 MATH 1104 MATH 3705** MECH 3002 MAAE 4907 / ECOR 4907 Differ ential course prerequisites. Course prerequisites are found in Multivariable Engineering Design Project (note c) Calculus for Linear Algebra for Equations & Machine Design Calculus for the Undergraduate Calendar course descriptions, and are Infinite Series to (1.0 credit) Eng. Students Eng. Students Methods I & Practice Eng. Students Eng. Students 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 2nd 2nd 4th **CHEM 1001 CHEM 1002** carefully review requirements for your catalog year. General Chemistry General Chemistry II **MECH 4013 MAAE 2101 MAAE 2001 MAAE 3004 MECH 3710 MECH 4210** Engineering Biomedical Device Engineering Dynamics of **Academic Advising** Biomaterials Biomechanics Graphical Design Design Dynamics Machinery Obtaining regular academic advising and support for **PHYS 1004** Elective course planning is essential for engineering students who Introductory Complementary Electromagnetism are "off-pattern" from their program map. Contact your Studies Elective & Wave Motion 2nd 2nd program advisor: SYSC 4201 **MAAE 2400** First year students (new and returning): MA AE 2202 MA AE 3202 **MAAE 3500 MECH 4406** Ethics. Research ECOR 1041 **ECOR 1045** Thermodynamics Mechanics of Mechanics of Feedback Control ECORSupport@carleton.ca Methods & Heat Transfer Computation & Prod & Heat Transfer Solids I Solids II Systems Standards for BME (0.25 credit) (0.25 credit) Second year and higher students: maeadvising@cunet.carleton.ca **ECOR 1043 ECOR 1047** Circuits Visual Comm Notes 2nd (0.25 credit) (0.25 credit) 2nd 2nd (a) 1.0 credits in BIOL 2005, BIOL 2201 or CHEM 2203 or any **MAAE 2700 ELEC 3605** Elective Elective **MECH 3310 MAAE 2300** Engineering Electrical Biomedical Elective omedical Elective BIOL, BIOC or CHEM course with permission from the **ECOR 1042 ECOR 1046** Fluid Mechanics I Biofluid Mechanics Materials Engineering (note a) (note a) Data Management Mechanics department. (0.25 credit) (0.25 credit) (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 **ECOR 1044 ECOR 1048** Dynamics or SYSC 4203. Mechatronics 4th 2nd (0.25 credit) (0.25 credit) ECOR 4995 **CCDP 2100** (c) Students must complete all first and second year courses, as **BIOL 1103** Elective **SYSC 3610** Elective Professional Communication well as 3.5 credits of third year courses (with the exception of Foundations of Complementary Biomedical Systems Engineering Elective Practice ● ECOR 1055 **ECOR 1056** Skills for Biology I Studies Elective Modeling & Control (note b) Complementary Studies Elective) to enroll in MAAE 4907 or (nate d) Ena. Students Introduction to Introduction to ECOR 4907 (Engineering Design Project). Engineering Engineering Disciplines I Disciplines II (0.0 credit) (0.0 credit) (d) ECOR 4995 can be taken in Fall term, if required due to limited elective options in Fall term.

*Arrow Legend
Required prerequisite

Concurrent prerequisite

ECOR 1057

Engineering

Profession

(0.0 credit)

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.

ECOR 3800

Engineering

Economics

ECOR 2995 Engineering Portfolio

(note e) (0.0 credit)

ECOR 2050

Design & Analysis o

Engineering

Experiments

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

registration instructions. Students register for ECOR 2995 once

4th year status is achieved, either before or concurrent with

(e) Please review Engineering Portfolio submission and

ECOR 4995.