AEROSPACE ENGINEERING: SPACE SYSTEMS DESIGN Catalog Year: 202530 Updated: 17/07/2025 **FIRST YEAR SECOND YEAR THIRD YEAR FOURTH YEAR Notes FALL FALL WINTER** WINTER **FALL WINTER FALL** WINTER Course Prerequisites and Year Status Requirements The Faculty of Engineering and Design strictly **MATH 1005 MATH 2004 MATH 1004** Elective MATH 3705 **AERO 3002** MAAE 4907 / ECOR 4907 upholds course prerequisites. Course prerequisites Differential Multivariable Engineering Design Project (note b) Calculus for Complementary Equations & Mathematica Aerospace Design Calculus for are found in the Undergraduate Calendar course Infinite Series for Eng. Students Studies Elective Methods I & Practice (1.0 credit) Eng. Students Eng. Students descriptions, and are indicated by arrows* between courses in this program map. Year status in Engineering prerequisites (as noted by **MATH 1104 CHEM 1101** 2nd 2nd 2nd, 3rd, or 4th above the course box) vary year to **ELEC 4509** Linear Algebra for Chemistry for **AERO 4842 AERO 3240 AERO 3841** year, please carefully review requirements for your Communications Eng. Students Eng. Students **AERO 2001 MAAE 2202** Spacecraft Design I Orbital Mechanics Spacecraft Design Links Aerospace catalog year. Mechanics of Engineering Solids I Graphical Design Academic Advising **PHYS 1004** Obtaining regular academic advising and support **Elective** Introductory Basic Science **AERO 4446** AERO 4442 Electromagnetism for course planning is essential for engineering Flective **MAAE 3004** Heat Transfer for Transatmospheric & Wave Motion 2nd **MAAE 3300** 2nd students who are "off-pattern" from their program Spacecraft Aerospace Dynamics of Fluid Mechanics II Applications Propulsion Machinery map. Contact your program advisor: **MAAE 2101 MAAE 2300** Fluid Mechanics I Dynamics First year students (new and returning): **ECOR 1031** ECORSupport@carleton.ca **ECOR 1033** Programming & Data Management **AERO 4540** Elective Second year and higher students: Spacecraft Attitude Engineering Elective maeadvising@cunet.carleton.ca **ELEC 3909 MAAE 3500 Dynamics & Control** (note a) 2nd 2nd Electromagnetic Feedback Control **ECOR 2050** Notes **MAAE 2400** Design & Analysis Thermodynamics **ECOR 1032** of Engineering **ECOR 1034** & Heat Transfer Circuits & (a) 1.5 credits in Mechanical and Aerospace Engineering Experiments Dynamics **Elective** Elective Mechatronics (MAAE, AERO or MECH) at the 4000-level Engineering Elective Engineering Elective or AERO 3101, AERO 3700, ELEC 4503, ELEC 4600 or (note a) (note a) 2nd ELEC 4709. **CCDP 2100** 2nd **MAAE 2700** Communication Engineering (b) Students must complete all first and second year ECOR 1055 **ECOR 1056** Skills for Elective **SYSC 3600** Materials courses, as well as 3.5 credits of third year courses (with Introduction to Introduction to Eng. Students Engineering Engineering Complementary Systems & the exception of Complementary Studies Elective) to Disciplines I Disciplines II Studies Elective Simulation **ECOR 4995** (0.0 credit) (0.0 credit) enroll in MAAE 4907 or ECOR 4907 (Eng. Design Project). Professional Practice (note c) (c) ECOR 4995 can be taken in Winter term, if required due to limited elective options in Winter term. **ECOR 1057 ECOR 3800** Engineering (d) Please review Engineering Portfolio submission and Engineering Profession **ECOR 2995 Engineering Portfolio** Economics registration instructions. Students register for ECOR 2995 (0.0 credit) (note d) (0.0 credit)

*Arrow Legend Kindly note: this program map has been designed to ease course planning and registration for engineering students; information is accurate at the time this Required prerequisite 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. Concurrent prerequisite

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

once 4th year status is achieved, either before or

concurrent with ECOR 4995.