Aerospace Engineering with Illinois Tech

Major Academic Plan (MAP) for Catalog Year 2025-2026
Major hours at Wheaton = 45

Total Major hours at Wheaton: 45
Suggested hours per semester: 16-18

The catalog is the final authority on CATC and major requirements; this is intended as a tool for planning purposes. Student course sequencing may vary depending on course offerings and other variables.

Fall Semester 1	**Spring Semester 1[2]**	**Summer 1**
MATH 235: Calculus I[1]* PHYS 231: Introductory Physics I[F, 1]* ENGR 101: Intro. to Engineering (1)[F] *CORE 101: First Year Seminar* *CORE 131: Holistic Human Flourishing (1)* *Language Core Competency*	MATH 236: Calculus II* PHYS 232: Introductory Physics II[S]* *ENGW 103: Writing* *BITH or ARCH 211 Old Testament*	*Consider study, internship or research options –Wheaton In summer program, WIN (HoneyRock), Wheaton in the Black Hills, non-major internship, summer research or other options that provide work experience, build your resume, or grow you personally.*
Fall Semester 2	**Spring Semester 2**	**Summer 2**
MATH 237: Calculus III* ENGR 334: Computer Modeling of Physical Systems (2)[F]* ENGR 211: Statics[F]* (3) *Thematic Core Course[3]* *COMM 101: Oral Communication (2)*	MATH 333: Differential Equations* ENGR 212: Dynamics[S]* (3) ENGR 214: Innovative Design in Engr.[F]*(3) *Visual & Performing Arts (2)* *BITH or ARCH 213 New Testament*	*Consider study, internship or research options.*
Fall Semester 3	**Spring Semester 3**	**Summer 3**
ENGR 313 Mechanics of Materials (3)[F]* CHEM 231: General Chemistry I[F] ENGR 336: Fluid Mechanics (3)[S, 4] *Advanced Integrative Seminar[3]** *Visual & Performing Arts (2)*	ENGR 338: Thermodyn. & Heat Transfer (3)[S,4] ENGR 494: Ethics Capstone (2)[S]* *BITH 315: Christian Thought** *Thematic Core Course[3]* *Thematic Core Course[3]*	*Consider study, internship or research options.*

All courses below this line are based on completion at IIT

Fall Semester 4	**Spring Semester 4**	**Summer 4**
MMAE 311: Compressible Flow (3) MMAE 312: Aerodynamics of Aerospace Vehicles (3) MMAE 315: Aerospace Laboratory 1 MMAE 350: Computational Mechanics (3)	MS 201: Material Science (3) MMAE 304: Mechanics of Aerostructures (3) MMAE 352: Aerospace Propulsion (3) MMAE 443: Systems Analysis & Control (3)	*Consider study, internship or research options.*
Fall Semester 5	**Spring Semester 5**	**Summer 5**
MMAE 410: Aircraft Flight Mechanics (3) MMAE 411: Spacecraft Dynamics (3) MMAE 414: Aircraft Design I (3) IPRO: IPRO Elective 1 (3)	MMAE 372: Aerospace Materials Lab (3) MMAE 412: Spacecraft Design I (3) MMAE 415: Aerospace Laboratory 2 MMAE: Technical Elective 1 (3) IPRO: IPRO Elective 2 (3)	

Last updated: 3/18/2025

	Fundamentals of Engineering Exam (0)	

Notes or Special Guidance for Majors:

*Course has prerequisite
[F] Fall only course
[S] Spring only course
[#] Offered every other year

[1] Classes that meet CATC Thematic Core tags: MATH 231 (AAQR), PHYS 231 (SP). Engineering majors should use the Engineering checklist for CATC.

[2] ENGR 132: Engineering Graphics and CAD (3), is strongly recommended in this semester.

[3] Engineering majors should carefully select CATC Thematic Core courses. In addition to the Themes already covered with required courses (AAQR and SP, see footnote 1), Social Inquiry (SI) and the Visual and Performing Arts (VPA or 2 of VPAV/VPAM/VPAT) must be taken. 4 of the 5 remaining themes must also be taken by Engineering majors. See the Engineering checklist for the full CATC requirements. Double tagged courses are strongly encouraged.

[4] These courses are taken in partnership with Illinois Tech while finishing Wheaton requirements.

-All Engineering MAPs are also located on the Engineering Department webpage. Please contact the Engineering Program Director, Jeff Yoder with questions. He can be reached at jeff.yoder@wheaton.edu.