

## **Engineering (4-Year Program)**

Total Major hours at Wheaton: 75 Suggested hours per semester: 16-18

## Major Academic Plan (MAP) for Catalog Year 2023-2024

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	Summer 1
MATH 235: Calculus I <sup>1*</sup> PHYS 231: Introductory Physics I <sup>F, 1*</sup> ENGR 101: Intro. to Engineering (1) <sup>F</sup> CORE 101: First Year Seminar COMM 101: Oral Communication (2) or Visual and Performing Arts (2)	MATH 236: Calculus II* PHYS 232: Introductory Physics II <sup>S*</sup> ENGR 131: Engineering Graphics and CAD  ENGW 103: Writing	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 333: Differential Equations* PHYS 334: Computer Modeling of Physical Systems (2) <sup>F*</sup> ENGR 201: Statics <sup>F*</sup> ENGR 204: Innovative Design in Engr. <sup>F*</sup> Language Core Competency I	MATH 237: Calculus III* ENGR 202: Dynamics <sup>S*</sup> Language Core Competency II BITH or ARCH 211 Old Testament	Consider study, internship or research options
Fall Semester 3	Spring Semester 3	Summer 3
CHEM 231: General Chemistry I <sup>F</sup> ENGR 223: Strength of Materials <sup>F*</sup> ENGR 346: Fluid Mechanics <sup>F*</sup>	ENGR 225: Material Science <sup>5*</sup> ENGR 302: Engineering Systems and Analysis <sup>5*</sup> (2)	Consider study, internship or research options
Language Core Competency III	BITH or ARCH 213 New Testament Thematic Core Course <sup>2</sup> COMM 101: Oral Communication (2) or Visual and Performing Arts (2)	
Fall Semester 4	Spring Semester 4	Summer 4
ENGR 451: Senior Design I <sup>F</sup> ENGR 348: Thermodynamics & Heat Transfer <sup>F*</sup> ENGR 3/4XX: Engineering Elective (2-4) <sup>F*</sup>	ENGR 452: Senior Design II (2) <sup>F*</sup> ENGR 494: Engineering Ethics Capstone (2) <sup>S*</sup>	Consider study, internship or research options
BITH 315: Christian Thought*  COMM 101: Oral Communication (2) or  Visual and Performing Arts (2)	Advanced Integrative Seminar <sup>2</sup> * Thematic Core Courses (8) <sup>2</sup>	

## **Notes or Special Guidance for Majors:**

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<sup>\*</sup>Course has prerequisite

<sup>&</sup>lt;sup>F</sup> Fall only course

<sup>&</sup>lt;sup>S</sup> Spring only course

<sup>\*</sup>Offered every other year

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<sup>&</sup>lt;sup>1</sup> Classes that meet CATC Thematic Core tags: MATH 231 (AAQR), PHYS 231 (SP), PSYC 101 (SI), ECON 211 (SI). General Engineering majors should use the General BA/BS checklist for CATC. A maximum of 3 tags can count for both CATC and the major.

<sup>&</sup>lt;sup>2</sup> Double tagged courses are strongly encouraged for all CATC thematic courses.

<sup>-</sup>All Engineering MAPs are also located on the <u>Engineering Department webpage</u>. Please contact the Engineering Coordinator, Jeff Yoder with questions. He can be reached at <u>jeff.yoder@wheaton.edu</u>.