Wheaton College 4-year General Engineering Plan

THIS PROGRAM PLAN IS FOR GUIDANCE ONLY. GRADUATION REQUIREMENTS ARE FOUND IN CATALOGS.

54 CATC (3x 2 tags), 30 math & science, 45 ENGR

Engineering Core

Engineering Concentration

Supporting Science & Math

CATC

Se

3

5

Fall Semester

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em	Code	Name		Hrs.	
1	MATH 235	Calculus I (AAQR)		4	
	PHYS 231	Introductory Physics I (SP)		4	
	ENGR 101	Introduction to Engineering		1	
	CORE 101	First Year Seminar		4	
	ENGW 103	Writing (0-4)		4	
			Total	17	

MATH 237	Calculus III		4	
ENGR 211	Engr. Mechanics I - Statics w lab		3	
ENGR 334	Comp. Modeling of Phys. Syst.		2	
ENGR 351	Analog Electronics w lab		2	
LANG	Language Core Competency I		4	
		Total	15	

CHEM 231	General Chemistry I		4	
ENGR 313	Mechanics of Materials w lab		3	
Concentration	Concentration Course 1		3	
Concentration	Concentration Course 2		3	
LANG	Language Core Competency III		4	
		Total	17	

ſ	Elective	Math & Science Elective*		2	
	ENGR 451	Senior Design I		4	
	Concentration	Concentration Course 5		3	
	BITH 315	Christian Thought		4	
	SELECT	Visual & Performing Art (2 of 2)		2	
Ī			Total	15	

Total Credit Hours 129 Avg. per semester 16.125

Minimum 15 Credit-hour concentration designed with department approval from courses in other engineering concentrations. Course options currently include:

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ENGR 235	Materials Science & Engr.	3
ENGR 323	Design of Machine Elements	2
ENGR 325	Solid Mechanics	2
ENGR 333	Mechatronics	4
ENGR 336	Fluid Mechanics	3
ENGR 338	Thermodynamics & Heat Transfer	3
ENGR 352	Fund. Of Environmental Engr.	3
ENGR 354	Water Resources Engineering	3
ENGR 356	Structural Analysis and Design	3
ENGR 358	Groundwater Hydrology and Well	
ENGR 556	Hydraulics	2
ENGR 359	Geotechnical Engineering	2
ENGR 371	Biomaterials	3
ENGR 372	Cell and Tissue Engineering	3
ENGR 373	Biomechanics	3
ENGR 374	Biomedical Device Design	3
ENGR 375	Biomedical Imaging	3
ENGR 495	Independent Study	1-4

Distributed Concentration

Spring Semester

		opring demester		
Sem	Code	Name		Hrs.
2	MATH 236	Calculus II		4
	PHYS 232	Introductory Physics II		4
	ENGR 132	Engineering Graphics and CAD		3
	COMM 101	Oral Communication (0-2)		2
	BITH 211	Old Testament Literature		4
			Total	17

4	MATH 333	Differential Equations		4
	ENGR 212	Engr. Mechanics II - Dynamics w lab		3
	ENGR 214	Innovative Design in Engr.		3
	LANG	Language Core Competency II		4
	SELECT	Visual & Performing Art (1 of 2)		2
		;	Total	16

6	ENGR 302	Engineering Systems Analysis		2
	Concentration	Concentration Course 3		3
	Concentration	Concentration Course 4		3
	SELECT	Thematic Core (1 of 3) (2 tags)		4
	BITH 213	New Testament Literature		4
			Total	16

			Total	16
	SELECT	Thematic Core (3 of 3) (2 tags)		4
	SELECT	Thematic Core (2 of 3) (2 tags)		4
	CORE 3xx	Advanced Int. Seminar (1 tag)		4
		Apply for FE Exam		0
	ENGR 494	Engineering Ethics Capstone		2
8	ENGR 452	Senior Design II		2

revised: 3/7/2024

^{*} The Math and Science elective may come from ENGR 271 or courses with prefixes ASTR, BIOL, CHEM, ENVR, GEOL, MATH, and PHYS that are approved by the Physics & Engineering department. Check with your advisor to determine course availability.

Wheaton College Engineering Distributed Concentration

Updated March 7, 2024

