

Wheaton College - Northern Illinois University (NIU) Program Plan

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

Engineering Major
General Education

Mechanical Engineering

		Fall Semester		
Sem	Code	Name	Hrs.	
1	MATH 235	Calculus I	4	
	PHYS 231	Introductory Physics I	4	
	ENGR 101	Introduction to Engineering	1	
	CORE 101	First Year Seminar	4	
	ENGW	Writing (0-4)	4	
<i>Total</i>			17	
3	MATH 237	Calculus III	4	
	ENGR 211	Engineering Mechanics I - Statics	3	
	ENGR 334	Computer Modeling of Physical Systems	2	
	LANG	World Languages	4	
	SELECT	Thematic Core (1 of 3)	4	
<i>Total</i>			17	
5	ENGR 313	Mechanics of Materials	3	
	CHEM 231	General Chemistry I	4	
	CORE 3xx	Advanced Seminar (with 1 Thematic Core tag)	4	
	SELECT	Thematic Core (2 of 3)	4	
<i>Total</i>			15	

years 1 - 3 credit hours = 97

		Spring Semester		
Sem	Code	Name	Hrs.	
2	MATH 236	Calculus II	4	
	PHYS 232	Introductory Physics II	4	
	ENGR 132	Engineering Graphics and CAD	3	
	COMM	Oral Communication (0-2)	2	
	BITH	Old Testament Literature	4	
<i>Total</i>			17	
4	MATH 333	Differential Equations	4	
	ENGR 212	Engineering Mechanics II - Dynamics	3	
	ENGR 214	Innovative Design in Engineering (NIU Tech. Elective 1)	3	
	BITH	New Testament Literature	4	
	SELECT	Visual & Performing Arts (1 of 2)	2	
<i>Total</i>			16	
6	ENGR 235	Materials Science for Engineering	3	
	ENGR 494	Engineering Ethics Capstone	2	
	BITH	Christian Thought	4	
	SELECT	Thematic Core (3 of 3)	4	
	SELECT	Visual & Performing Arts (2 of 2)	2	
<i>Total</i>			15	

All courses below this line are based on completion at NIU

7	MEE 320	Mechanism design and analysis	3	
	MEE 321	Mechanical vibrations I	3	
	MEE 340	Fluid Mechanics	3	
	ELE 210 & 210U	Engineering Circuit Analysis	4	
	ISYE 220	Engineering Economy	3	
<i>Total</i>			16	
9	MEE 352	Heat transfer	3	
	MEE 380	Computational methods in engineering design	3	
	MEE 390	Experimental Methods in mechanical engineering I	3	
	MEE 430	Computer aided design and manufacturing	3	
	MEE 485	Senior Mechanical Engineering Design I	1	
	TE	Technical Elective 2	3	
<i>Total</i>			16	

years 4 - 5 credit hours = 57
TOTAL credit hours = 154

8	MEE 322	Dynamic systems and control I	3	
	MEE 331	Manufacturing processes	3	
	MEE 350	Engineering Thermodynamics	3	
	MEE 383	Engineering Analysis	3	
	MEE 470	Design of machine elements	3	
<i>Total</i>			15	
10	MEE 452	Design of thermal systems	3	
	MEE 486	Senior Mechanical Engineering Design II	3	
	MEE 494	Mechanical engineering competency	1	
	TE	Technical Elective 3	3	
	Exam	Fundamentals of Engineering (Passing is not required)		
<i>Total</i>			10	

last updated 3/8/2024

Wheaton College - NIU Mechanical Engineering

Updated March 2024

All courses after Semester 6 are taken at NIU.

