

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

Electrical 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	
	CORE 131	Holistic Human Flourishing	1	
	LANG	World Languages	4	
			<i>Total</i>	18
3	MATH 237	Calculus III	4	
	ENGR 211	Engineering Mechanics I - Statics	3	
	ENGR 334	Computer Modeling of Physical Systems	2	
	ENGR 351	Analog Electronics (w/lab)	2	
	SELECT	Thematic Core (1 of 3)	4	
	COMM	Oral Communication (0-2)	2	
			<i>Total</i>	17
5	CHEM 231	General Chemistry I	4	
	SELECT	Thematic Core (2 of 3)	4	
	CORE 3xx	Advanced Seminar (with 1 Thematic Core tag)	4	
	SELECT	Visual & Performing Arts (2 of 2)	2	
			<i>Total</i>	14

years 1 - 3 credit hours = 95

		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-optional)		
	LANG	World Languages	4	
	BITH	Old Testament Literature	4	
			<i>Total</i>	16
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	PHYS 331	Spacetime and Quanta	4	
	ENGR 494	Engineering Ethics Capstone	2	
	BITH	Christian Thought	4	
	SELECT	Thematic Core (3 of 3)	4	
			<i>Total</i>	14

All courses below this line are based on completion at NIU

7	ELE 250	Computer Engineering I	4	
	ELE 315	Signals and Systems	3	
	ELE 330	Electronic Circuits	4	
	ELE 340	Electrical Power Systems	4	
	ISYE 335	Prob & Stats for Engineers	3	
			<i>Total</i>	18
9	ELE 335	Theory of Semiconductor Devices I	3	
	TECH	Technical Elective 2	3	
	TECH	Technical Elective 3	3	
	ISYE 220	Eng. Economy	3	
	ELE 495	Senior Electrical Engineering Design I	3	
			<i>Total</i>	15

years 4 - 5 credit hours = 61

TOTAL credit hours = 156

Electives: any ELE at 400+ (see NIU catalog)

8	ELE 356	Computer Engineering II	4	
	ELE 360	Communications Systems	4	
	ELE 370	Engineering Electromagnetics	3	
	ELE 380	Control Systems I	4	
	ELE 395	Junior Electrical Engineering Design	1	
			<i>Total</i>	16
10	TECH	Technical Elective 4	3	
	TECH	Technical Elective 5	3	
	TECH	Technical Elective 6	3	
	ELE 496	Senior Electrical Engineering Design II	3	
	EXAM	Fundamentals of Engineering (Passing is not required)		
			<i>Total</i>	12

last updated 8/7/2024

Wheaton College - NIU Electrical Engineering

Updated August 2024

All courses after Semester 6 are taken at NIU.

