

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 231	Calculus I	4
	PHYS 231	Introductory Physics I	4
	ENGR 101	Introduction to Engineering	1
	CORE 101	First Year Seminar	4
	LANG.	Foreign Language	4
<i>Total</i>			17

		Spring Semester	
Sem	Code	Name	Hrs.
2	MATH 232	Calculus II	4
	PHYS 232	Introductory Physics II	4
	ENGR 105	Fundamentals of Engineering Graphics (2 - optional)	
	ENGW	Writing (0-4)	4
	BITH	Old Testament Literature	4
	AHS 101	Wellness (0-2)	2
<i>Total</i>			18

3	MATH 331	Vector Calculus	2
	PHYS 334	Computer Modeling of Physical Systems	2
	ENGR 201	Engineering Mechanics I - Statics	4
	SELECT	Thematic Core (1 of 3)	4
	SELECT	Thematic Core (2 of 3)	4
	COMM	Oral Communications (0-2)	2
<i>Total</i>			18

4	MATH 333	Differential Equations	4
	PHYS 331	Spacetime and Quanta	4
	SELECT	Thematic Core (3 of 3)	4
	SELECT	Visual & Performing Arts (1 of 2)	2
	BITH	New Testament Literature	4
<i>Total</i>			18

5	CHEM 231	General Chemistry I	4
	MATH 363	Probability and Statistics	4
	PHYS 351	Analog Electronics (w/lab)	2
	ENGR 204	Innovative Design in Engineering (NIU Tech. Elective 1)	4
	ENGR 125	Introduction to CADD (2 - optional)	
	SELECT	Visual & Performing Arts (2 of 2)	2
<i>Total</i>			16

6	ENGR 202	Engineering Mechanics II - Dynamics	4
	BITH	Christian Thought	4
	CORE 3xx	Advanced Seminar (with 1 Thematic Core tag)	4
	ENGR 394	Ethics Capstone	2
	<i>Total</i>		

years 1 - 3 credit hours = 101

All courses below this line are based on completion at NIU

7	ELE 315	Signals and Systems	3
	ELE 330	Electronic Circuits	4
	ELE 250	Computer Engineering I	4
	ELE 340	Electrical Power Systems	4
<i>Total</i>			15

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

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

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>		

years 4 - 5 credit hours = 58

TOTAL credit hours = 159

last updated 8/24/2020

Wheaton College - NIU Electrical Engineering

Updated December 2019

All courses after Semester 6 are taken at NIU.

