

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

3	MATH 333	Differential Equations	4
	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
<i>Total</i>			18

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

years 1 - 3 credit hours = 101

Spring Semester			
Sem	Code	Name	Hrs.
2	MATH 232	Calculus II	4
	PHYS 232	Introductory Physics II	4
	ENGR 130	Engineering Graphics and CAD (4-optional)	
	ENGW	Writing (0-4)	4
	BITH	Old Testament Literature	4
	AHS 101	Wellness (0-2)	2
<i>Total</i>			18

4	MATH 331	Vector Calculus	2
	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
	COMM	Oral Communication (0-2)	2
<i>Total</i>			18

6	ENGR 202	Engineering Mechanics II - Dynamics	4
	ENGR 394	Engineering Ethics Capstone	2
	BITH	Christian Thought	4
	CORE 3xx	Advanced Seminar (with 1 Thematic Core tag)	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
<i>Total</i>			15

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 = 58

TOTAL credit hours = 159

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 8/3/2021

Updated August 2021

Prerequisite —————→
Co-requisite→
Credit Hours (xx)

- 1st yr. seminar (4)
- Foreign Lang. (4)

- Writing (4)
- Old Test. Lit. (4)
- Wellness (2)

- Thematic Core 1 (4)
- Thematic Core 2 (4)

- Thematic Core 3 (4)
- New Test. Lit. (4)
 - V & P Arts 1 (2)
 - Oral Comm (2)

- V & P Arts 2 (2)

- Christian Thought (4)
- ENGR 394 Eth CS (2)
- Core 3xx Ad Sem (4)

