2019

Bachelor of Science in Engineering 2019-2020

Nova Southeastern University

NOVA SOUTHEASTERN UNIVERSITY | NSU Florida

COLLEGE OF ENGINEERING AND COMPUTING
DEGREE CURRICULUM SHEET | 2019 - 2020 CATALOG
Bachelor of Science in Engineering

Freshman Year			
Fall		**Winter**	
Course	**Credits**	**Course**	**Credits**
UNIV 1000: First Year Seminar	3	COMP 2000 Advanced College Writing	3
COMP 1500 College Writing	3	CHEM 1300 General Chemistry I/Lab	4
BIOL 1500 Biology I/Lab	4	MATH 2200 Calculus II	4
MATH 2100 Calculus I	4	GENG 1016 Introduction to Engineering Design	3
GENG 1000 Introduction to Engineering	1	GENG 2050 Computer Applications in Engineering	3
GENG 1012 Engineering Graphics	3		
Total Credits	**18**	**Total Credits**	**17**
Sophomore Year			
Fall		**Winter**	
Course	Credits	Course	Credits
PHYS 2400 Physics I/Lab	4	PHYS 2500 Physics II/Lab	4
MATH 3200 Calculus III	4	MATH 3300 Introductory Linear Algebra	3
MATH 4500 Probability and Statistics	3	MATH 3400 Ordinary Differential Equations	3
GENG 2000 Engineering Design and Project	2	GENG 2070 Materials and Processes	3
Management I		GENG 2450 Dynamics	3
GENG 2022 Statics	3		
Total Credits	**16**	**Total Credits**	**16**
Junior Year			
Fall		**Winter**	
Course	Credits	Course	Credits
Open Social/Behavioral Science	3	GENG 3000 Engineering Design and Project	3
EENG 2710 Electrical Circuits/Lab	4	Management II	
GENG 3800 Quality Control for Engineers	3	GENG 3012 Thermal and Fluid Systems	3
GENG 3420 Engineering Economics	3	GENG 3050 Sensors, Measurements, and Controls	3
Open Concentration	3	GENG 3024 Mechanics of Materials	3
		Open Concentration	3
Total Credits	**16**	**Total Credits**	**15**
Senior Year			
Fall		**Winter**	
Course	Credits	Course	Credits
Open Arts & Humanities	3	Open Arts & Humanities	3
CENG 4910 Engineering Ethics Seminar	1	Open Social/Behavioral Science	3
GENG 4010 Senior Capstone Design Project I	3	GENG 4020 Senior Capstone Design Project II	3
Open Concentration	3	Open Concentration	3
Open Concentration	3		
Total Credits	**13**	**Total Credits**	**12**
Total Credits: 123			

last modified April 2016

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FIRST YEAR SEMINAR		
Course	**Credits**	**Frequency**
UNIV 1000: First Year Seminar	3	FW
Total First Year Seminar Credits	**3**	

GENERAL EDUCATION REQUIREMENTS		
Area/Course	**Credits**	**Frequency**
Written Composition		
6 credits at or above COMP 1500		
COMP 1500 College Writing	3	FW
COMP 2000 Advanced College Writing	3	FW
Mathematics		
6 credits at or above MATH 1040		
Satisfied by Major Prerequisites	3	FW
Satisfied by Major Prerequisites	3	FW
Arts & Humanities		
6 credits in HIST, ARTS, PHIL, HUMN, LITR, THEA, FILM, MUSC, DANC, WRIT, foreign language		
Open Arts & Humanities	3	FW
Open Arts & Humanities	3	FW
Social & Behavioral Sciences		
6 credits in PSYC, SOCL, ANTH, ECN, COMM, GEOG, GEST, INST, POLS		
Open Social & Behavioral Science	3	FW
Open Social & Behavioral Science	3	FW
Science		
6 credits in BIOL, MBIO, CHEM, SCIE, ENVS, PHYS		
Satisfied by Major Prerequisites	3	FW
Satisfied by Major Prerequisites	3	FW
Total General Education Credits	**30**	

CONCENTRATIONS		
take 15 concentration credits; see concentration sheet	15	FW
Total Concentration Credits	**15**	

MAJOR PREREQUISITES		
Course	**Credits**	**Frequency**
Science		
BIOL 1500 Biology I / Lab	4	FW
CHEM 1300 General Chemistry I /Lab	4	FW
PHYS 2400 Physics I/Lab	4	FW
PHYS 2500 Physical II/Lab	4	FW
Mathematics		
MATH 2100 Calculus I	4	FW
MATH 2200 Calculus II	4	FW
MATH 3200 Calculus III	4	FW
MATH 3300 Introductory Linear Algebra	3	FW
MATH 3400 Ordinary Differential Equations	3	W
MATH 4500 Probability and Statistics	3	F
Total Major Prerequisite Credits	**37**	

MAJOR CORE REQUIREMENTS		
Course	**Credits**	**Frequency**
CENG 4910 Engineering Ethics Seminar	1	F
EENG 2710 Electrical Circuits/Lab	4	F
GENG 1000 Introduction to Engineering	1	F
GENG 1012 Engineering Graphics	3	F
GENG 1016 Introduction to Engineering Design	3	W
GENG 2000 Engineering Design and Project Management I	2	F
GENG 2022 Statics	3	F
GENG 2050 Computer Applications in Engineering	3	W
GENG 2070 Materials and Processes	3	W
GENG 2450 Dynamics	3	W
GENG 3000 Engineering Design and Project Management II	3	W
GENG 3012 Thermal and Fluid Systems	3	W
GENG 3024 Mechanics of Materials	3	W
GENG 3050 Sensors, Measurements, and Controls	3	W
GENG 3420 Engineering Economics	3	F
GENG 3800 Quality Control for Engineers	3	F
GENG 4010 Senior Capstone Design Project I	3	F
GENG 4020 Senior Capstone Design Project II	3	W
Total Major Core Requirements Credits	**50**	

Frequency Key: F-Every Fall; W-Every Winter; FO - Odd Year Fall; FE - Even Year WO - Odd Year Winter; WE - Even Year Winter

TOTAL CREDITS: 123

Subject to change

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There are 2 concentrations available; choose 15 credits from one of the following:

BIOMEDICAL ENGINEERING		
Course	**Credits**	**Frequency**
BENG 2080 Foundations of Biomedical Engineering	3	F
BENG 4030 Biomechanics and Materials	3	F
BENG 4040 Physiological Systems and Modeling for Engineering I	3	W
BENG 4050 Physiological Systems and Modeling for Engineering II	3	F
BENG 4200 Biomedical Instrumentation	3	W
Total Biomedical Engineering Concentration Credits	**15**	

INDUSTRIAL AND SYSTEMS ENGINEERING		
Course	**Credits**	**Frequency**
IENG 3010 Principles and Methods of Industrial and Systems Engineering	3	F
IENG 3060 Systems Optimization	3	W
IENG 4010 Work Measurement and Human Factors	3	F
IENG 4020 Analysis of Production Systems and Facility Design	3	F
IENG 4065 Discrete System Modeling	3	W
Total Indus. and Sys. Engineering Concentration Credits	**15**	

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