

Degree Requirements for B.S. in Electrical Engineering at Wayne State University

Freshman Year

First Semester	Credits
MAT 2010: Calculus I	4
CHM 1225: (PS) Chemical Structure, Bonding & Reactivity	3
CHM 1230: Chemical Principles in the Laboratory	1
BE 1200: (CL) Basic Engineering I: Design in Engineering	3
ENG 1020: (BC) Introductory College Writing	4
Total	15

Second Semester	Credits
MAT 2020: Calculus II	4
PHY 2170: (PS) General Physics	4
PHY 2171: General Physics Laboratory	1
CSC 2000: Introduction to C++ Programming Language	3
BE 1300: Basic Engineering II: Material Science for Engg. Applications	3
BE 1310: Science of Engineering Materials I Lab	1
Any (AI) Course: American Society and Institutions	3
Critical Thinking (CT) Exam	0
Total	19

Sophomore Year

First Semester	Credits
MAT 2030: Calculus III	4
PHY 2185: General Physics	4
BE 2100: Basic Engineering III: Probability & Statistics in Engineering	3
ECE 2620: Introduction to Microcomputers	4
Any (VP) Course: Visual & Performing Arts	3
Total	18

Second Semester	Credits
MAT 2150: Differential Equ. and Matrix Algebra	4
BE 2550: Basic Engineering IV: Numerical Methods and Computer Programming	3
ECE 3300: Introduction to Electrical Circuits	3
ECE 3310: Electrical Circuits: Laboratory	1
ECE 3610: Digital Logic I	4
ECE 3630: Digital Circuits Laboratory	2
Total	17

Junior Year

First Semester	Credits
ECE 3330: Electrical Circuits II	4
ECE 3570: Electronics I	4
ECE 3580: Electronics I Laboratory	2
ENG 3050: (IC) Technical Communication I: Report Writing	3
Any (HS) Course: Historical Studies	3
Total	16

Second Semester	Credits
ECE 4330: Linear Network and System Analysis	4
ECO 2010 or ECO 2020	3
--- (SS) Principles of Microeconomics	
--- (SS) Principles of Macroeconomics	
ECE 4570: Electronics II	4
ENG 3060: (OC) Technical Communication II: Writing and Speaking	3
Any (FC) Course: Foreign Culture	3
Total	17

Senior Year

First Semester	Credits
Electrical or Computer Option Courses	12
ECE 4340: Microcomputer-Based Intrum. Lab	2
PHI 1120: (PL) (EI) Professional Ethics	3
Total	17

Second Semester	Credits
ECE 4600: (WI) Capstone Design	4
ECE Elective	8
BIO 1510: (LS) Basic Life Mechanisms	3
Total	15

<u>Electrical Option</u>	Credits
ECE 4470: Control System I	4
ECE 4700: Introduction to Communication Theory	4
ECE 4800: Electromagnetic Fields and Waves I	4

<u>Computer Option</u>	Credits
▪ ECE 4050 or ECE 5650	4
--- Algorithms and Data Structures	
--- Network Programming for Engineers	
▪ ECE 4700 or ECE 4800	4
--- Introduction to Communication Theory	
--- Electromagnetic Fields and Waves I	
▪ ECE 4680: Computer Organization	4

Total Credits 134

Revised: October 15, 2007
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