

Bachelor of Science in Engineering

Electrical Engineering Concentration | 4-Year Sample Sequence

2022-2023 Sample Course Schedule -- This is a recommended schedule and may be altered as needed. Consult your adviser when making changes. See degree audit for Christian Service requirements.

Year 1

Summer

ENGL 101 Critical Thinking in Acad. Rdg/Wrtg I 3

Fall

ENGR 122 Introduction to Engineering & Design 2
MATH 191 Calculus I 4
CHEM 151 General Chemistry I 4
COMM 135 Intro to Public Speaking 3
ENGL 102 Critical Thinking in Acad. Rdg/Wrtg II 3
Total: 16

Winter

ENGR 149 Intro to Mechanical Drawing and CADD 3
ENGR 200 Digital Logic & Design 3
MATH 192 Calculus II 4
CPTR 124 Fundamentals of Programming 4
MATH 200 Elementary Linear Algebra 2
Total: 16

Year 2

Summer

R-1 Spiritual Development 3

Fall

MATH 218 Calculus III 4
PHYS 221 Physics for Scientists and Engineers I 4
PHYS 223 Physics for Scientists & Engineers Lab I 1
ENGR 220 Introduction to Signal Processing 4
ENGR 211 Engineering Mechanics: Statics 3
Total: 16

Winter

MATH 315 Differential Equations 3
PHYS 222 Physics for Scientists and Engineers II 4
PHYS 224 Physics for Scientists & Engineers Lab II 1
ENGR 224 Circuit Analysis 4
ENGR 212 Engineering Mechanics: Dynamics 3
PEAC 125 Fitness for Collegiate Life 1
Total: 16

Year 3

Fall

ENGR 328 Analog Electronics 3
ENGR 380 Microcontroller Design 4
ENGR 393 Electrical Energy Conversion 4
MATH 327 Probability and Statistics 3
CPTE 100 Computer Concepts 1
P-1b PEAC Activity Course 1
Total: 16

Winter

ENGR 385 Robotics 4
ENGR 435 Electromagnetic Fields 3
ENGR 415 Power Electronics 3
ENGR UD EE Approved Elective 3
R-3 Biblical Studies (W) 3
Total: 16

Year 4

Fall

ENGR 460 Engineering Ethics and Management 2
ENGR 481 Senior Design I (W) 1
ENGR 450 Power System Analysis and Design 3
ENGR 390 Engineering Measurements 3
R-2 Seventh-day Adventist Teachings 3
IN-10 Aesthetic Analysis 3
P-1b PEAC Activity Course 1
Total: 16

Winter

ENGR 462 Engineering Economy 2
ENGR 482 Senior Design II 2
IN-8 Human Development 3
R-4 Biblical Studies (W) 3
PEAC 425 Fit for Hire 1
IN-6 History 3
Total: 14

Grand Total: 132

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(as of March 2023)

Bachelor of Science in Engineering

Electrical Engineering Concentration | 5-Year Sample Sequence

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Year 1

Fall

ENGR 122	Introduction to Engineering & Design	2
MATH 191	Calculus I	4
CHEM 151	General Chemistry I	4
ENGL 101	Critical Thinking in Acad. Rdg/Wrtg I	<u>3</u>

Total: 13

Winter

ENGR 149	Intro to Mechanical Drawing and CADD	3
MATH 192	Calculus II	4
R-1	Spiritual Development	3
ENGL 102	Critical Thinking in Acad. Rdg/Wrtg II	3
PEAC 125	Fitness for Collegiate Life	<u>1</u>

Total: 14

Year 2

Fall

MATH 218	Calculus III	4
PHYS 221	Physics for Scientists and Engineers I	4
PHYS 223	Physics for Scientists & Engineers Lab II	1
R-2	Seventh-day Adventist Teachings	3
P-1b	PEAC Activity Course	<u>1</u>

Total: 13

Winter

ENGR 200	Digital Logic & Design	3
MATH 200	Elementary Linear Algebra	2
CPTR 124	Fundamentals of Programming	4
PHYS 222	Physics for Scientists and Engineers II	4
PHYS 224	Physics for Scientists & Engineers Lab II	<u>1</u>

Total: 14

Year 3

Fall

ENGR 211	Engineering Mechanics: Statics	3
ENGR 220	Introduction to Signal Processing	4
COMM 135	Intro to Public Speaking	3
IN-8	Human Development	<u>3</u>

Total: 13

Winter

ENGR 212	Engineering Mechanics: Dynamics	3
ENGR 224	Circuit Analysis	4
MATH 315	Differential Equations	3
R-3	Biblical Studies (W)	3
P-1b	PEAC Activity Course	<u>1</u>

Total: 14

Year 4

Fall

ENGR 328	Analog Electronics	3
ENGR 380	Microcontroller Design	4
ENGR 393	Electrical Energy Conversion	4
MATH 327	Probability and Statistics	<u>3</u>

Total: 14

Winter

ENGR 385	Robotics	4
ENGR 415	Power Electronics	3
ENGR 435	Electromagnetic Fields	3
ENGR UD	EE Approved Elective	<u>3</u>

Total: 13

Year 5

Fall

ENGR 390	Engineering Measurements	3
ENGR 450	Power System Analysis and Design	3
ENGR 460	Engineering Ethics and Management	2
ENGR 481	Senior Design I (W)	1
IN-10	Aesthetic Analysis	<u>3</u>

Total: 12

Winter

ENGR 462	Engineering Economy	2
ENGR 482	Senior Design II	2
IN-6	History	3
CPTE 100	Computer Concepts	1
R-4	Biblical Studies (W)	3
PEAC 425	Fit for Hire	<u>1</u>

Total: 12

Grand Total: 132

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