

# Bachelor of Science in Engineering

## Mechanical 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 330 Thermodynamics 3  
ENGR 340 Mechanics of Materials 4  
ENGR 390 Engineering Measurements 3  
ENGR 374 Advanced CAD/MCAE 1  
MATH 327 Probability and Statistics 3  
R-3 Biblical Studies (W) 3  
**Total: 17**

#### Winter

ENGR 385 Robotics 4  
ENGR 344 Material Properties and Processes 3  
ENGR 420 Machine Design 3  
ENGR 360 Fluid Dynamics 4  
P-1b PEAC Activity Course 1  
**Total: 15**

### Year 4

#### Fall

ENGR 460 Engineering Ethics and Management 2  
ENGR 481 Senior Design I (W) 1  
ENGR 350 Manufacturing Processes 2  
ENGR 440 Heat and Mass Transfer 3  
R-2 Seventh-day Adventist Teachings 3  
IN-10 Aesthetic Analysis 3  
P-1b PEAC Activity Course 1  
**Total: 15**

#### Winter

ENGR 462 Engineering Economy 2  
ENGR 482 Senior Design II 2  
CPTE 100 Computer Concepts 1  
R-4 Biblical Studies (W) 3  
PEAC 425 Fit for Hire 1  
IN-6 History 3  
IN-8 Human Development 3  
**Total: 15**

**Grand Total: 132**

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# Bachelor of Science in Engineering

## Mechanical Engineering Concentration | 5-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

#### 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 330	Thermodynamics	3
ENGR 340	Mechanics of Materials	4
ENGR 390	Engineering Measurements	3
ENGR 374	Advanced CAD/MCAE	1
MATH 327	Probability and Statistics	<u>3</u>

**Total: 14**

#### Winter

ENGR 344	Material Properties and Processes	3
ENGR 360	Fluid Dynamics	4
ENGR 385	Robotics	4
ENGR 420	Machine Design	<u>3</u>

**Total: 14**

### Year 5

#### Fall

ENGR 350	Manufacturing Processes	2
ENGR 440	Heat and Mass Transfer	3
ENGR 460	Engineering Ethics and Management	2
ENGR 481	Senior Design I (W)	1
IN-10	Aesthetic Analysis	3
CPTE 100	Computer Concepts	<u>1</u>

**Total: 12**

#### Winter

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

**Total: 11**

**Grand Total: 132**

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