

Name \_\_\_\_\_

Student ID \_\_\_\_\_

Date \_\_\_\_\_

## 2025-26 Bachelor of Science in Engineering Physics Checklist

### TRANSFORMATIONAL JOURNEY PROGRAM (TJP)

#### First Year Experience (3 credits)

\_\_\_\_ FYS 110 First Year Seminar

#### Faith and Ethics (9 credits)

\_\_\_\_ THL 105 Introduction to Theology

\_\_\_\_ PHL 130 Human Nature & Person

\_\_\_\_ Second THL\*

#### Scientific Problem Solving

Fulfilled by major requirements

#### Quantitative Problem Solving

Fulfilled by major requirements

#### Civics Problem Solving (3 credits)

\_\_\_\_ EGR 317 Engineering Economics

\_\_\_\_ BUS 109 Business Plan Competition

\_\_\_\_ HIS 100 Civics and Democratic Engagement

#### Communication (6 credits)

\_\_\_\_ ENG 112 Writing and Community

\_\_\_\_ COM 101 Public Speaking

#### Cultural and Global Awareness (6 credits)

\_\_\_\_ World Language (determined by placement)

One of the following courses:

\_\_\_\_ GLS 101 Global Perspectives

\_\_\_\_ HUM 210 Meaning Through Culture

#### Health and Well-Being (6 credits)

\_\_\_\_ HWB 110 Holistic Health: Mind, Body, and Spirit

One of the following courses:

\_\_\_\_ PSY 101 General Psychology

\_\_\_\_ PSY 220 Human Growth and Development

\_\_\_\_ SOC 101 Introduction to Sociology

#### Broad Integrative Knowledge Outside Major\*\*

- Completion of a minor
- Completion of a second major
- Completion of a Pathway

\*Please refer to catalog or MUHUB Progress tab for a complete list of courses that meet these requirements.

\*\*Please refer to catalog or MUHUB Progress tab for a description of acceptable major/minor options.

### Engineering Physics Major Core Requirements (30 hours)

\_\_\_\_ MAT 230 Calculus I 4

\_\_\_\_ MAT 231 Calculus II 4

\_\_\_\_ PHY 201 University Physics I 4

\_\_\_\_ PHY 202 University Physics II 4

\_\_\_\_ PHY 212 Modern Physics 4

\_\_\_\_ PHY 220 Astrophysics and Cosmology 3

\_\_\_\_ PHY 440 Intro. to Nanotech. and Nanosystems 3

\_\_\_\_ PHY 460 or 498 Physics Internship/Research 2

\_\_\_\_ PHY 490 Senior Seminar 2

### Engineering Physics Major Requirements (6 – 7 hours) (CHOOSE 2)

\_\_\_\_ CHE 325 Physical Chemistry 4

\_\_\_\_ PHY 330 Electricity and Magnetism 3

\_\_\_\_ PHY 350 Biophysics 3

### Engineering Physics Electives (EGR 200 and above, CST 200 and above, MAT 305 and above, CHE 300 or 425) (24 hours)

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### Elective Credits (Including Minor) (35 hours)

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Total Earned Hours 128

# MARIAN UNIVERSITY

Indianapolis®

## 2025-26 Bachelor of Science in Engineering Physics Sample Four-Year Plan

Year One					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Major: Calculus I	MAT 230	4	Major: Calculus II	MAT 231	4
Elective: Intro to Engineering	EGR 101	3	Major: University Physics I	PHY 201	4
Elective: Programming for Engineers	EGR 151	3	Elective: Computer Aided Design	EGR 156	3
TJP: First Year Seminar	FYS 110	3	TJP: Holistic Health	HWB 110	3
TJP: Public Speaking	COM 101	3	TJP: Writing and Community	EGR 155	3
<b>Semester Hours</b>		<b>16</b>	<b>Semester Hours</b>		<b>17</b>
<b>Cumulative Hours</b>		<b>16</b>	<b>Cumulative Hours</b>		<b>33</b>
Year Two					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Major: University Physics II	PHY 202	4	Major: Modern Physics	PHY 212	4
Major: Elective	EGR XXX	3	Major: Elective	EGR XXX	3
Major: Elective	EGR XXX	3	Major: Elective	EGR XXX	3
Elective: Minor		3	TJP: Human Nature & Person	PHL 130	3
TJP: Intro to Theology	THL 105	3	Elective: Minor		3
<b>Semester Hours</b>		<b>16</b>	<b>Semester Hours</b>		<b>16</b>
<b>Cumulative Hours</b>		<b>49</b>	<b>Cumulative Hours</b>		<b>65</b>
Year Three					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Major: Astrophysics and Cosmology	PHY 220	3	Major: Elective	EGR XXX	3
Major: Electricity and Magnetism	PHY 330	3	Major: Elective	EGR XXX	3
Major: Elective	EGR XXX	3	TJP: Civics	HIS/BUS	3
TJP: Second Theology	THL 2XX	3	TJP: World Language	Language	3
Elective: Minor		3	Elective: Minor		3
			Elective: Minor		3
<b>Semester Hours</b>		<b>15</b>	<b>Semester Hours</b>		<b>18</b>
<b>Cumulative Hours</b>		<b>80</b>	<b>Cumulative Hours</b>		<b>98</b>
Year Four					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Major: Biophysics	PHY 350	3	Major: Intro to Nano	PHY 440	3
Major: Internship	PHY 460	2	Major: Elective	EGR XXX	3
Major: Senior Seminar	PHY 490	2	Elective		3
Elective		3	Elective		2
Elective		3	TJP: Social Science	PSY/SOC	3
TJP: Cultural/Global	HUM/GLS	3			
<b>Semester Hours</b>		<b>16</b>	<b>Semester Hours</b>		<b>14</b>
<b>Cumulative Hours</b>		<b>114</b>	<b>Cumulative Hours</b>		<b>128</b>

\*A minimum 2.0 cumulative GPA and a minimum 2.0 major GPA are required for graduation, so monitor your GPA closely. To meet degree requirements, some disciplines require higher grades in each course or a higher cumulative GPA.

This plan is only a sample and will vary by student and course availability.