

Name _____

Student ID _____

Date _____

2026-27 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

Fulfilled by major requirements (EGR 317)

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.

General Math and Science Requirements (19 hours)

____ MAT 230 Calculus I 4

____ MAT 231 Calculus II 4

____ EGR 210 Engineering computation & Modeling 3

____ PHY 201 University Physics I 4

____ PHY 202 University Physics II 4

Engineering Core Requirements (18 hours)

____ EGR 101 Introduction to Engineering 3

____ EGR 151 Programming for Engineers 3

____ EGR 156 Intro to Computer Aided Design 3

____ EGR 301 Global Engineering 3

____ EGR 317 Engineering Economics 3

____ EGR 491 Senior Design 3

Engineering Physics Major Requirements (23 hours)

____ PHY 212 Modern Physics 4

____ EGR 221 Engineering Mechanics: Statics 3

____ EGR 222 Engineering Mechanics: Dynamics 3

____ EGR-261 Thermodynamics 3

____ PHY 330 Electricity and Magnetism 3

____ PHY 350 Biophysics 3

____ PHY 440 Intro. to Nanotech. & Nanosystems 3

____ EGR 460 or 498 Physics Internship/Research 1*

(*Maximum one credit)

Engineering Physics Electives (38 hours)

[EGR, CPE, CVE, MEN, CEN, BME 200 and above,

CST 200 and above, MAT 305 and above,

CHE 300 and above, Maximum 18 credits from minor]

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Total Earned Hours 128

MARIAN UNIVERSITY

Indianapolis®

2026-27 B.S. Engineering Physics Major Sample Four-Year Plan

Year One					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Gen Math & Sci: Calculus I	MAT 230	4	Gen Math & Sci: Calculus II	MAT 231	4
CORE: Intro to Engineering	EGR 101	3	Gen Math & Sci: University Physics I	PHY 201	4
CORE: Programming for Engineers	EGR 151	3	CORE: 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	ENG 112	3
Semester Hours		16	Semester Hours		17
Cumulative Hours		16	Cumulative Hours		33
Year Two					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Gen Math & Sci: University Physics II	PHY 202	4	Gen Math & Sci: Comp & Modeling	EGR 210	3
Major: Eng. Mechanics: Statics	EGR 221	3	Major: Modern Physics	PHY 212	4
Major: Thermodynamics	EGR 226	3	Major: Eng. Mechanics: Dynamics	EGR 222	3
Major: Elective		3	TJP: Human Nature & Person	PHL 130	3
TJP: Intro to Theology	THL 105	3	Major: Elective		3
Semester Hours		16	Semester Hours		16
Cumulative Hours		49	Cumulative Hours		65
Year Three					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
CORE: Global Engineering	EGR 301	3	Major: Biophysics	PHY 350	3
Major: Electricity and Magnetism	PHY 330	3	Major: Elective		3
Major: Elective		3	Major: Elective		3
TJP: Second Theology	THL 2XX	3	TJP: World Language	Language	3
Major: Elective		3	CORE: Engineering Economics	EGR 317	3
			Major: Elective		3
Semester Hours		15	Semester Hours		18
Cumulative Hours		80	Cumulative Hours		98
Year Four					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Major: Internship/Research	EGR460/498	1	Major: Intro to Nano	PHY 440	3
Major: Elective		3	Major: Elective		3
Major: Elective		3	Major: Elective		3
CORE: Senior Design	EGR 491	3	Major: Elective		3
Major: Elective		3	TJP: Social Science	PSY/SOC	3
TJP: Cultural/Global	HUM/GLS	3			
Semester Hours		16	Semester Hours		15
Cumulative Hours		114	Cumulative Hours		129

*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.