

Name _____

Student ID _____

Date _____

2024-25 Computer Engineering 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 (27 hours)

___ MAT 230 Calculus I 4

___ MAT 231 Calculus II 4

___ MAT 305 Calculus III 4

___ EGR 210 Engineering Computation and Modeling 3

___ CHE 140 General Chemistry I 3

___ CHE 141L General Chemistry I Lab 1

___ PHY 201 University Physics I 4

___ PHY 202 University Physics II 4

Engineering Core Requirements (24 hours)

___ EGR 101 Introduction to Engineering 3

___ EGR 151 Programming for Engineers 3

___ EGR 156 Intro Computer Aided Design 3

___ EGR 221 Engineering Mechanics: Statics 3

___ EGR 242 Linear Circuit Analysis 3

___ EGR 301 Global Engineering 3

___ EGR 317 Engineering Economics 3

___ EGR 491 Engineering Senior Design 3

Computer Engineering Requirements (49 hours)

___ EGR 326 Engineering Statistics 3

___ EGR 451 Control Systems 3

___ CST 200 Data Structures and Algorithms 4

___ CST 220 Comp Org & Assembly Lang Prog 3

___ CPE 246 Advanced Programming 3

___ CPE 256 Computer Vision 3

___ CPE 303 Introduction to Operating Systems 3

___ CPE 341 Linear Circuit Analysis II 3

___ CPE 343 Digital System Design 3

___ CPE 344 Signal and Systems 3

___ CPE 356 Microprocessor Design 3

___ CPE 402 Mechatronics 3

___ CPE 404 Comp Network & Communications 3

___ CPE 492 Senior Design II 3

___ Computer Engineering Elective 3

___ Computer Engineering Elective 3

Total Earned Hours 130

MARIAN UNIVERSITY

Indianapolis®

2024-25 B.S. Computer Engineering 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 Engineering	EGR 101	3	Gen Math & Sci: University Physics I	PHY 201	4
CORE: Programming for Engineers	EGR 151	3	Gen Math & Sci: Gen Chem I	CHE 140	3
TJP: First Year Seminar	FYS 110	3	Gen Math & Sci: Gen Chem I Lab	CHE 141L	1
TJP: Intro Theology	THL 105	3	CORE: Intro Computer Aided Design	EGR 156	3
			TJP: Holistic Health	HWB 110	3
Semester Hours		16	Semester Hours		18
Cumulative Hours		16	Cumulative Hours		34
Year Two					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
Gen Math & Sci: Calculus III	MAT 305	4	Gen Math & Sci: Comp & Modeling	EGR 210	3
Gen Math & Sci: University Physics II	PHY 202	4	CORE: Lin Circuit Analysis	EGR 242	3
CORE: Engr Mechanics: Statics	EGR 221	3	MAJ: Computer Vision	CPE 256	3
MAJ: Advanced Programming	CPE 246	3	TJP: Writing and Community	ENG 112	3
TJP: Public Speaking	COM 101	3	TJP: Cultural/Global	HUM/GLS	3
Semester Hours		17	Semester Hours		15
Cumulative Hours		51	Cumulative Hours		66
Year Three					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
CORE: Global Engineering	EGR 301	3	TJP: Health & Well-Being	PSY/SOC	3
MAJ: Data Structures	CST 200	4	CORE: Engineering Economics	EGR 317	3
MAJ: Digital System Design	CPE 343	3	MAJ: Signals & Systems	CPE 344	3
MAJ: Linear Circuit Analysis II	CPE 341	3	MAJ: Microprocessor Design	CPE 356	3
MAJ: Intro to Operating Systems	CPE 303	3	MAJ: Comp Org and Assembly	CST 220	3
			MAJ: Comp Networks & Comms	CPE 404	3
Semester Hours		16	Semester Hours		18
Cumulative Hours		82	Cumulative Hours		100
Year Four					
Fall Semester			Spring Semester		
Requirement Category	Course	Credit Hrs	Requirement Category	Course	Credit Hrs
CORE: Senior Design I	EGR 491	3	TJP: Faith & Ethics #2	2 nd THL	3
MAJ: Control Systems	EGR 451	3	MAJ: Engineering Statistics	EGR 326	3
MAJ: CPE Program Elective	CPE XXX	3	MAJ: Senior Design II	CPE 492	3
TJP: World Language	World Lang.	3	MAJ: Mechatronics	CPE 402	3
TJP: Human Nature & Person	PHL 130	3	MAJ: CPE Program Elective	CPE XXX	3
Semester Hours		15	Semester Hours		15
Cumulative Hours		115	Cumulative Hours		130

*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.