

Name \_\_\_\_\_

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

Date \_\_\_\_\_

## 2026-27 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\*\*

a. Completion of a minor

b. Completion of a second major

c. 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 (33 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

\_\_\_\_ EGR 326 Engineering Statistics 3

\_\_\_\_ MAT 289 Intro to Discrete Structures 3

### Engineering Core Requirements (18 hours)

\_\_\_\_ EGR 101 Introduction to Engineering 3

\_\_\_\_ EGR 151 Programming for Engineers 3

\_\_\_\_ EGR 156 Intro Computer Aided Design 3

\_\_\_\_ EGR 301 Global Engineering 3

\_\_\_\_ EGR 317 Engineering Economics 3

\_\_\_\_ EGR 491 Senior Design 3

### Computer Engineering Requirements (49 hours)

\_\_\_\_ EGR 242 Linear Circuit Analysis 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 Electronics 3

\_\_\_\_ CPE 343 Digital System Design 3

\_\_\_\_ CPE 344 Signal and Systems 3

\_\_\_\_ CPE 356 Microcontrollers 3

\_\_\_\_ CPE 404 Comp Network & Communications 3

\_\_\_\_ CPE 492 Senior Design II 3

\_\_\_\_ Computer Engineering Elective 3

\_\_\_\_ Computer Engineering Elective 3

\_\_\_\_ Free (Minor Elective) 3

**Total Earned Hours** 130

# MARIAN UNIVERSITY

Indianapolis®

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

| Year One                              |             |            |            |                                      |                     |            |            |
|---------------------------------------|-------------|------------|------------|--------------------------------------|---------------------|------------|------------|
| Fall Semester                         |             |            |            | Spring Semester                      |                     |            |            |
| Requirement Category                  | Course      | Credit Hrs | Min. Grade | Requirement Category                 | Course              | Credit Hrs | Min. Grade |
| Gen Math & Sci: Calculus I            | MAT 230     | 4          |            | Gen Math & Sci: Calculus II          | MAT 231             | 4          | C-         |
| CORE: Intro Engineering               | EGR 101     | 3          |            | Gen Math & Sci: University Physics I | PHY 201             | 4          | C-         |
| TJP: First Year Seminar               | FYS 110     | 3          |            | CORE: Intro Computer Aided Design    | EGR 156             | 3          | C-         |
| TJP: Intro Theology                   | THL 105     | 3          |            | TJP: Holistic Health                 | HWB 110             | 3          |            |
| CORE: Programming for Engineers       | EGR 151     | 3          | C-         | Gen Math & Sci: Intro to Disc. Str.  | MAT 289             | 3          |            |
| Semester Hours                        |             | 16         |            | Semester Hours                       |                     | 17         |            |
| Cumulative Hours                      |             | 16         |            | Cumulative Hours                     |                     | 33         |            |
| Year Two                              |             |            |            |                                      |                     |            |            |
| Fall Semester                         |             |            |            | Spring Semester                      |                     |            |            |
| Requirement Category                  | Course      | Credit Hrs | Min. Grade | Requirement Category                 | Course              | Credit Hrs | Min. Grade |
| Gen Math & Sci: Calculus III          | MAT 305     | 4          | C-         | Gen Math & Sci: Comp & Modeling      | EGR 210             | 3          | C-         |
| Gen Math & Sci: University Physics II | PHY 202     | 4          | C-         | MAJ: Lin Circuit Analysis            | EGR 242             | 3          | C-         |
| Free: Minor Elective                  |             | 3          |            | MAJ: Computer Vision                 | CPE 256             | 3          |            |
| MAJ: Advanced Programming             | CPE 246     | 3          | C-         | Gen Math & Sci: EGR Statistics       | EGR 326             | 3          |            |
| TJP: Public Speaking                  | COM 101     | 3          |            | Gen Math & Sci: Gen Chem I           | CHE 140             | 3          |            |
|                                       |             |            |            | Gen Math & Sci: Gen Chem I Lab       | CHE 141L            | 1          |            |
| Semester Hours                        |             | 17         |            | Semester Hours                       |                     | 16         |            |
| Cumulative Hours                      |             | 50         |            | Cumulative Hours                     |                     | 66         |            |
| Year Three                            |             |            |            |                                      |                     |            |            |
| Fall Semester                         |             |            |            | Spring Semester                      |                     |            |            |
| Requirement Category                  | Course      | Credit Hrs | Min. Grade | Requirement Category                 | Course              | Credit Hrs | Min. Grade |
| CORE: Global Engineering              | EGR 301     | 3          |            | TJP: Writing and Community           | ENG 112             | 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: Electronics                      | CPE 341     | 3          | C-         | MAJ: Microcontrollers                | CPE 356             | 3          | C-         |
| MAJ: Intro to Operating Systems       | CPE 303     | 3          | C-         | 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 | Min. Grade | Requirement Category                 | Course              | Credit Hrs | Min. Grade |
| CORE: Senior Design                   | EGR 491     | 3          | C-         | TJP: Faith & Ethics #2               | 2 <sup>nd</sup> THL | 3          |            |
| MAJ: Control Systems                  | EGR 451     | 3          |            | TJP: Health & Well-Being             | PSY/SOC             | 3          |            |
| MAJ: CPE Program Elective             | CPE 4XX     | 3          |            | MAJ: Senior Design II                | CPE 492             | 3          |            |
| TJP: World Language                   | World Lang. | 3          |            | TJP: Cultural/Global                 | HUM/GLS             | 3          |            |
| TJP: Human Nature & Person            | PHL 130     | 3          |            | MAJ: CPE Program Elective            | CPE 4XX             | 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. 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. Depending on your minor, some courses listed without a minimum grade requirement may still have one for the minor.