**BS IN COMPUTER ENGINERRING CHECKLIST**

**Mount Vernon Nazarene University, 2024-2025**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID \_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_

**BA/BS DEGREE REQUIREMENTS:**

Must complete ALL of the following:

\_\_ 1. Minimum of 120 semester hours.

\_\_ 2. General Education Core.

\_\_ 3. Algebra (MAT0093) OR two (2) years of high school algebra and/or geometry

\_\_ 4. 30 semester hours of courses numbered 3000 or above. (Examples marked with \* below)

\_\_ 5. Complete course work for an approved major(s) and minor(s).

\_\_ 6. Cumulative GPA of at least 2.00 in all courses at MVNU.

\_\_ No grade below "C-" in required major courses.

\_\_ No grade below "C-" in the minimum number of major electives.

\_\_ 7. Complete Junior-Senior assessment program.

**GENERAL EDUCATION CORE REQUIREMENTS**

**Competencies 10-15 Common Core 18-19**

\_\_ ENG1083/4 College Writing 3-4 (w/ lab) \_\_COR1012/3 D.o.C.M. 2-3 (w/lab)

\_\_ Foreign Lang or Communication 3-4 \_\_ BIB1013 Narrative of Scripture 3

\_\_ Quantitative Reasoning 3-4 \_\_ HIS1013 Western Tradition 3

\_\_ Health & Wellness 1-3 \_\_ COR2003 Exploring Vocation I 3

\_\_ COR3001 Exploring Vocation II 1\*

*Includes service-focused trip via Campus Ministries*

**Explorations** **11-17**

\_\_ Crossing Cultures 0-4 \_\_ THE3003 Christian Beliefs\* 3\*

\_\_ Natural Science with lab 4 \_\_ COR5013 Contemporary Concerns 3\*

\_\_ Social Science 3

\_\_ The Arts 1-3

\_\_ Literature 3

or Honors Core Conversations

# BS COMPUTER ENGINEERING REQUIREMENTS

**Major Courses 62-65**

\_\_ CSC1024 Computer Science I 4 \_\_ EGR3002 Engineering Economics 2\*

\_\_ CSC2024 Computer Science II 4 \_\_ EGR3123 Digital Signal Processing 3\*

\_\_ EGR1001 Comp. Eng. w/MATLAB 1 \_\_ EGR3133 Intro to Microcontrollers 3\*

\_\_ EGR1033 Computer-Aided Design 1 \_\_ EGR3174 Analog Electronics 4\*

\_\_ CSC1053 Elementary Discrete Math 3 \_\_ EGR3183 Adv. Digital Logic Design 3\*

\_\_ CSC2033 Data Structures & Algorithms 3 \_\_ EGR3164 Communication Systems 4\*

\_\_ EGR2043 Statics 3 \_\_ EGR4001 Engineering Ethics 1\*

\_\_ EGR2033 Digital Systems 3 \_\_ EGR4012 Senior Design Project I 2\*

\_\_ EGR2053 Dynamics 3 \_\_ EGR4022 Senior Design Project II 2\*

\_\_ EGR2064 Electric Circuit Analysis 4 \_\_ Electives (Ex. CSC-3044) 5-8

\_\_ CSC3054 Computer Org & Architecture 4\* \_\_ Electives (EGR 3014/3063/3033/CSC-3/4 level)

**Corequisites Math Courses 18**

\_\_ MAT1034 Calculus I 4 \_\_ MAT2063 Intro to Statistics 3

\_\_ MAT2034 Calculus II 4 \_\_ MAT3043 Differential Equations 3\*

\_\_ MAT3034 Multivariable Calculus 4\*

**Corequisites Science Courses 14**

\_\_ CHE1034 General Chemistry I 4 \_\_ PHY2065 University Physics II w/ Lab 5

\_\_ PHY2055 University Physics w/ Lab 5