

August 2012

**TRANSFER EVALUATION AND CHECK-OFF FORM
COMPUTER ENGINEERING PROGRAM**

SEMESTER 1 (15 cr)	MU CR	TR CR	GR	COMMENT
CHEM 1001 ^b	4			Core SN
EECE 1953	1			COEN 1
ENGL 1001 ^f	3			Core R - 1
GEEN 1200	3			
MATH 1450 ^b	4			Core MR
SEMESTER 3 (19 cr)				
EECE 2010 ¹	3			
EECE 2015 ¹	1			
EECE 2710 ¹	3			
GEEN 2952	1			
MATH 2450	4			
PHIL 1001 ^b	3			HN&E-1 (UCCS)
PHYS 1003 ^b	4			
SEMESTER 5 (17 cr)				
COEN 2610	3			
COSC 2010	3			
EECE 3010	3			
EECE 3015	2			
MATH 2105	3			
PHIL 2310 ^b	3			HN&E-2 (UCCS)
SEMESTER 7 (15 cr)				
COEN 4720	3			
COEN 4920	3			
COEN/TECH ELEC ²	3			
COEN/TECH ELEC ²	3			
COEN/TECH ELEC ²	3			

SEMESTER 2 (17 cr)	MU CR	TR CR	GR	COMMENT
Core elective ^c or THEO 1001 ^b	3			
Core Rhetoric 2 ^f	3			
EECE 1954	1			
EECE 1610	3			
GEEN 1210	3			
MATH 1451 ^b	4			
SEMESTER 4 (18 cr)				
COEN 2020	3			
EECE 2030 ¹	3			
EECE 2035	1			
MATH 2451	4			
PHYS 1004 ^b	4			
THEO 1001 ^b or Core elective ^c	3			
SEMESTER 6 (18 cr)				
COEN 4710	3			
COEN 4820	3			
COEN/TECH ELEC ²	3			
Core Elective ^c	3			
Core Elective ^c	3			
MATH 4720	3			
SEMESTER 8 (15 cr)				
COEN 4998	3			
COEN/TECH ELEC ²	3			
COEN/TECH ELEC ²	3			
Core Elec ^c /Free Elec ^d	3			
Theology Elective ^e	3			Theology-2 (UCCS)
TOTAL CREDITS	134			

UCCS Requirement	Course No.	COEN Electives	Course No.	Course No.	Course No.
Diverse Cultures (DC)		Hardware Engineering			
Histories of Cul & Soc (HCS)		Software Engineering			
Indiv & Soc Behav (ISB)		Intelligent Systems			
Lit & Perform Arts (LPA)		Applications			

DEGREE REQUIREMENTS INCLUDE:

- Every required course
- Approved elective program.
- A "C" (2.0) or more average at Marquette
- A "C" (2.0) or more average in Engineering courses
- A minimum of 135 semester hours
- No course may be taken for credit without the required prerequisite(s)
- All substitutions and/or departures from stated curriculum must be approved in writing in advance

Notes:

University Core of Common Studies:

(a) Refer to the College of Engineering section of this bulletin for details relating to footnotes b, c, d, e, and f.

~~~ College Notes ~~~~

- (b) This course satisfies requirements of the University Core of Common Studies.
- (c) The Core Electives must satisfy University Core Requirements in the following four Knowledge Areas: Diverse Cultures, Histories of Cultures and Societies, Individual and Social Behavior, and Literature/Performing Arts. See the section on University Core of Common Studies for lists of acceptable courses. Only one of these courses can be a dual application course.
- (d) If the previous Core Electives span all four Knowledge Areas (as listed in the previous footnote), a three-credit free elective may be chosen. This situation will exist if one of the student's core electives is a "dual application" core course, as described in the section on the University Core of Common Studies.
- (e) The Theology Elective must be selected from the list of approved Core courses in the Theology Knowledge Area. See the section on University Core of Common Studies.
- (f) The Core Rhetoric 1 requirement is to be fulfilled by ENGL 1001; the Core Rhetoric 2 requirement is to be fulfilled by either ENGL 1002 or COMM 1100.

#### ***Department notes:***

- (1) A C or better grade is required in this course to meet the prerequisites for subsequent computer and/or electrical engineering required courses.
- (2) At least five of the six electives must be COEN design electives. The remaining elective can be in any technical area.
- (3) Of the five COEN design electives, one must be in the Hardware Engineering area, one must be in the Software Engineering area, and one must be in either the Intelligent Systems area or the Applications area. Of the five COEN design electives, three must be in one of the following areas: Hardware Engineering, Software Engineering, Intelligent Systems or Applications. A course listed in two concentration areas may be counted toward only one elective requirement.

## Elective Choices

**The breadth requirement:** Students must choose at least one course from at least 3 different concentration areas.

**The depth requirement:** Students must choose at least 3 courses from one concentration area.

**Courses count in ONLY one concentration area.**

Concentration areas:

| Hardware            |           |                                             |
|---------------------|-----------|---------------------------------------------|
|                     | COEN 4730 | Computer Architecture                       |
|                     | COEN 4790 | Developments in Computer Hardware           |
|                     | EECE 4410 | Integrated Microelectronic Circuits         |
|                     | EECE 4510 | Digital Signal Processing                   |
|                     |           |                                             |
| Software            |           |                                             |
|                     | COEN 4610 | Object-Oriented Software Engineering        |
|                     | COEN 4620 | Modern Programming Practices                |
|                     | COEN 4630 | Software Testing                            |
|                     | COEN 4690 | Developments in Computer Software           |
|                     | COEN 4840 | Computer Security                           |
|                     |           |                                             |
| Intelligent Systems |           |                                             |
|                     | COEN 4650 | Introduction to Algorithms                  |
|                     | COEN 4840 | Computer Security                           |
|                     | COEN 4850 | Introduction to Intelligent Systems         |
|                     | COEN 4860 | Introduction to Neural Nets & Fuzzy Systems |
|                     | COEN 4870 | Evolutionary Computing                      |
|                     | EECE 4510 | Digital Signal Processing                   |
|                     |           |                                             |
| Applications        |           |                                             |
|                     | COEN 4620 | Modern Programming Practices                |
|                     | COEN 4630 | Software Testing                            |
|                     | COEN 4690 | Developments in Computer Software           |
|                     | COEN 4810 | Database Applications                       |
|                     | COEN 4830 | Intro to Computer Graphics                  |
|                     | COEN 4840 | Computer Security                           |
|                     |           |                                             |