**Purdue Northwest Curriculum Document Coversheet**

|  |  |  |  |
| --- | --- | --- | --- |
| **Document No:**  (According to [Instruction](http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/)s[[1]](#footnote-1)) | CES 18-24 REV PROG CMPE | **Approval by Faculty Senate:**  (Leave Blank) | 5/3/19 |
| **Proposed Effective Date** | Summer 2019 | **Date Reviewed by Senate Curriculum**  **Committee:**  (Leave blank) | 4/12/19 |
| **Submitting Department:**  (Name of both Dept & College/School ) | Electrical and Computer Engineering, School of Engineering, College of Engineering and Sciences | **Name(s) of Library Staff Consulted:**  (NA if not required) | NA |
| **Date Reviewed by Department** | February 13, 2019 |  |  |
| **Submission Date:**  (Date sent to College/School Curr Comm after Dept Review) | February 27, 2019 | **Will New Library**  **Resources Used?** | **Yes** **No**  Double-click to check Yes / No. |
| **Date Reviewed by College/School Curriculum Committee** |  | **Form 40 Needed?**  (Double-click one box.)  Registrar will complete Form 40 **after** Senate approval of document. | **Yes** New courses or any course change, check **YES**  **No** For **all other** curriculum matters, check **NO**. |
| **Contact Person(s):**  (Name & Title) | David Kozel, Professor |  |  |

Unless marked “Leave blank” all parts of this form must be filled in **before** sending to Secretary of the Faculty Senate.

|  |
| --- |
| **Task (check all that apply and fill out sections appropriate for each change).**  Program/Concentration Change or New Program/Concentration Proposal: Complete Section I, III, & IV  Minor Change or New Minor Proposal: Complete Section I (delete sections III & IV)  Certificate Change or New Certificate Proposal: Complete Section I (delete sections III & IV)  Course Change or New Course Proposal: Complete Section II (delete sections III & IV) |
| **Program name**. Computer Engineering |
| **Degree name(s).** (If applicable.) Bachelor of Science in Computer Engineering |

## Section I: This section is for changes in programs, minors and certificates

|  |
| --- |
| **List the major changes in each program of study, minor or certificate.**  Provide more flexibility in specifying computer elective courses, placing restrictions on the Free Elective so pre-engineering level courses are not allowed. |
| **Impact on Students.** (State “N/A” if proposal will not greatly affect students.)  None |
| **Impact on University Resources.** (State “N/A” if proposal will not require new resources, faculty or funds.)  N/A |
| **Impact on other Academic Units.** (State “N/A” if proposal will not affect other units.)(Include name of person in affected area discussed with)  N/A |

## Section II: This section is for changes in courses only

|  |
| --- |
| **Subject.** (Brief description of proposed change, addition or deletion.) |
| **Justification.** (Briefly list main reasons for proposed change, addition or deletion.) |

Use the **Current** and **Proposed** spaces below for course changes only. Otherwise, mark “N/A”

|  |  |  |
| --- | --- | --- |
| **Current:** (Course changes: include entire present catalog information. Leave blank if new course) | | **Proposed:** (Course changes: include entire new catalog information.) |
| **Is this course also:** | **General Education** | **Currently Designated ExL (see** [**instructions[[2]](#footnote-2)**](http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/)**)** |

|  |
| --- |
| **Course Objectives / Learning Outcomes.** (New courses only. List main outcomes. If lengthy, attach separate page.)  1.  2.  3. |
| **Impact on Students.** (State “N/A” if proposal will not greatly affect students.) |
| **Impact on University Resources.** (State “N/A” if proposal will not require new resources, faculty or funds.) |
| **Impact on other Academic Units.** (State “N/A” if proposal will not affect other units.) (Include name of person in affected area this was discussed with.) |

(Boxes will expand and spill over onto next page to accommodate your typing.)

***Document No:***

## Section III: PLAN OF STUDY REVISION

### Degree Name: Bachelor of Science in Computer Engineering

### Degree Requirements

The degree requirements, i.e., the specified courses and the order taken by semester, are not changing. The only changes are in the electives. There are two changes:

1. **Computer Electives (9 credits)**  
   As approved when the revised program was submitted, EMS 16-2:  
   Computer Engineering Electives - 3 courses required: ECE 31100, 37500, 45100, 45400, 45900, 46400, 46810, 47600, 54400, 54700; CS 31600, 33200, 44200; Any ECE or CS 49500 and above with advisor approval.  
     
   New statement:  
   Any three courses selected from a list approved by the ECE faculty.
2. **Free elective (3 credits)**  
   As approved when the revised program was submitted, EMS 16-2:  
   There was no statement.  
     
   As appears in the current catalog:  
   Student may choose any course to fulfill this requirement.  
     
   New statement:  
   The free elective, subject to approval by the advisor, can be almost any three-or-more-credit course. Not allowed are math, science, and technology courses that are lower-level than the required courses; such as MATH 15900 or 16019, CHM 10000, PHYS 22000, ECET 20900 and 21000; and FM and MSL courses

Notes:

1. The reason for the computer elective change is that the field is changing rapidly. Every time a new course is added or an older course eliminated, it should not be necessary to seek Senate approval since these are electives, not required courses.
2. The purpose of the Free Elective is to give the students some flexibility. The reason for the change is to prevent students from using pre-major level courses, such as college algebra or a lower-level science or technology or engineering course from being used.
3. Attached are the proposed program from EMS-16-2 to show what exists in complete detail, followed by the proposed with the revisions indicated in red. The revisions are only in the notes on the last two pages.

**THIS IS THE PROPOSED FROM EMS-16-2-BS-Computer-Engineering-REV1**

**PROPOSED: CATALOG YEAR 2016-2017**

**College of Engineering, Mathematics, and Science**

**Degree – Bachelor of Science  
 Major: Computer Engineering**

| **Degree Requirements** | **Details** | | |
| --- | --- | --- | --- |
| Credit Hours | 122 credit hours For example, students starting a 120 credit hour program in Fall 2016 must complete a minimum of 15 credit hours per semester/30 credit hours per academic year to earn a Bachelor’s Degree on time in 4 years and graduate by May 2020. | | |
| Grade Point Average ( GPA) | Minimum 2.0 GPA overall and 2.0 average GPA in all ECE courses | | |
| Residency Rule | Complete at least 32 hours at the 30000 or higher course level at Purdue University Calumet (PUC campus) | | |
| Experiential Learning (E X L) | 2 courses approved with the E X L attribute. E X L courses are noted by (e) next to the course title. | | |
| General Education Core | Purdue University Calumet requires a minimum of 30 credit hours in the following General Education competencies: | | |
| English Composition (6 credits); Natural Science (3 to 4 credits);  Mathematics or Statistics (3 credits);  Humanities (3 credits); | Social Science (3 credits);  Speech Communication (3 credits); Computer Utilization (3 credit hours); | Wellness Education (1 to 3 credits); Technology in Society (3 credits); Freshman Experience Course (1 to 3 credits). |
| Some courses may fulfill more than one requirement. Additional General Education coursework may be required to achieve the minimum 30 credit hours. Only courses approved by University Senate will satisfy Gen Ed Requirements. (See Course Description under Important Links on the Academic Catalog web site at <http://www.purduecal.edu/catalog/>.) | | |

**Milestone Courses noted by (m) next to the course title** **have been identified as being critical to your success in this field of study.** Failure to master the subject matter in milestone courses may impact your ability to progress in your degree program. This may entail achieving higher grades than just the minimum noted in this plan of study. Review program requirements with your academic advisor to stay on track for graduation. **E X L courses are noted by (e) next to the course title**.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER 1 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| Integrated Calculus and Analytic Geometry I (m) | MA 16300 (m) | FA, SP | 5 | Yes | C |  |  | MA 15100 or MA 15900 or  MA 15400 |
| General Chemistry | CHM 11500 | FA, SP | 4 | Yes |  |  |  | MA 15300 |
| Fund. of Speech Comm. | COM 11400 | FA, SP | 3 | Yes |  |  |  |  |
| First year Seminar for Engineers | ENGR 18600 | FA | 1 | Yes |  |  |  |  |
| Elementary Engineering Design | ENGR 19000 | FA | 2 |  |  |  |  | MA 15900 |

| **SEMESTER 2 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Integrated Calculus and Analytic Geometry II (m) | MA 16400 (m) | FA, SP | 5 |  | C |  |  | MA 16300 |
| Mechanics (m) | PHYS 15200 (m) | FA, SP | 4 | Yes | C |  |  | MA 16300 |
| English Composition I | ENGL 10400 | FA, SP | 3 | Yes |  |  | ENGL 10000 ENGL 10800 | High School Grades |
| Software Tools for Engineers | ENGR 15100 | SP | 3 | Yes | C |  |  | Pre/Co-requisite: MA 16300 |

| **SEMESTER 3 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Multivariate Calculus (m) | MA 26100 (m) | FA, SP | 4 |  | C |  |  | MA 16400 |
| Electricity Optics | PHYS 26100 | FA, SP | 4 |  | C |  |  | PHYS 15200 and MA 16400 |
| Linear Circuit Analysis I (m) | ECE 20100 (m) | FA | 3 |  | C |  |  | MA 16400 and PHYS 15200; Pre/Co-requisite: ECE20700 |
| Electronic Meas. Techniques | ECE 20700 | FA | 1 |  | C |  |  | Pre/Co-requisite: ECE 20100 |
| Programming for Engineers | ECE 15200 | FA | 3 |  | C |  |  | ENGR 15100 |

| **SEMESTER 4 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Differential Equations | MA 26400 | FA, SP | 3 |  | C |  |  | MA 26100 |
| Linear Algebra | MA 26500 | FA, SP | 3 |  |  |  |  | MA 16400 |
| Linear Circuit Analysis II (m) | ECE 20200 (m) | SP | 3 |  | C |  |  | ECE 20100, MA 26100 & ECE 20700 |
| Intro to Digital System Design | ECE 27001 | SP | 4 |  | C |  |  | ECE 15200 and 20100 and 20700 |
| Object Oriented Program (m) | ECE 25100 (m) | SP | 3 |  |  |  |  | ECE 15200 |

| **SEMESTER 5 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Signals and Systems | ECE 30100 | FA | 3 |  |  |  |  | ECE 20200 and MA 26400; Pre/Co-requisite ECE 30101 |
| Signals and Systems Lab | ECE 30001 | FA | 1 |  |  |  |  | Pre/Co-requisite ECE 30100 |
| Data Structures | CS 27500 | FA | 3 |  |  |  |  | CS 12400 and MA 16300 |
| Engineering Project Management | ECE 31200 | FA | 3 |  |  |  |  |  |
| Microprocessor System Design & Interfacing | ECE 36201 | FA | 4 |  |  |  |  | ECE 27001 |

| **SEMESTER 6 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Discrete Math Structure | CS 30900 | SP | 3 |  |  |  |  | MA 16400 |
| Probabilistic Methods in Electrical Engineering | ECE 30200 | SP | 3 |  |  |  |  | ECE 20200; Pre/Co-requisite: ECE 30100 |
| Computer Organization & Design | ECE 37100 | SP | 3 |  |  |  |  | ECE 362XX |
| Written/Oral Communication for Engineers | COM/ENGL 30700 | FA, SP | 3 | Yes |  |  |  | ENGL 10400 or 10000 or 10800, and COM 11400 and ECE 20200 with “C” minimum grade |
| Analog & Digital Electronics | ECE 27500 | SP | 4 |  |  |  |  | ECE 20100 and ECE 20700;  Pre/Co-requisite ECE 20200 |

| **SEMESTER 7 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Senior Engineering Design I (e) | ECE 42900 (e) | FA, SP | 3 |  |  |  |  | See Note 1 |
| Intro to Communication Theory | ECE 44800 | FA | 4 |  |  |  |  | ECE 27500 and ECE 30100 and ECE 30200 |
| Software Engineering Design I | ECE 35400 | FA | 3 |  |  |  |  | ECE 25100 and CS 27500 |
| Computer Elective | See Note 2 | FA, SP | 3 |  |  |  |  |  |
| Social Science Elective | Any Gen Ed approved Social Science course | FA, SP | 3 | Yes |  |  |  |  |

| **SEMESTER 8 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Senior Engineering Design II (e) | ECE 43900 (e) | FA, SP | 3 |  |  |  |  | ECE 42900 |
| Computer Elective | See Note 2 | FA, SP | 3 |  |  |  |  |  |
| Computer Elective | See Note 2 | FA, SP | 3 |  |  |  |  |  |
| Free Elective |  | FA, SP | 3 |  |  |  |  |  |
| Ethics for the Professions | PHIL 32400  See Note 3 | FA, SP | 3 | Yes |  |  |  |  |
| **Program Total** |  |  | **122** |  |  |  |  |  |

*Additional Information and Guidelines*

Note 1: Senior Engineering Design I - Prerequisite: COM/ENGL 30700 and ECE 31200 and ECE 362XX and ECE 30100 and CS 27500, Penultimate semester; Pre/Co-requisite: ECE 27500 and ECE 37100.

Note 2: Computer Engineering Electives - 3 courses required: ECE 31100, 37500, 45100, 45400, 45900, 46400, 46810, 47600, 54400, 54700; CS 31600, 33200, 44200; Any ECE or CS 49500 and above with advisor approval.

Note 3: Ethics for the Professions, PHIL 32400 - Please use section reserved for engineering students.

Students who do not receive a grade in a required ECE course that meets the minimum or better required for their plan of study in three attempts, including grades of W, will not be allowed to continue in Electrical or Computer Engineering programs.

Continuing students cannot transfer in credit for a required ECE course without prior approval of the Undergraduate Committee.

Students may elect to add a minor in Computer Science. The web site for BSCPE electives is <http://webs.purduecal.edu/ece/electives-by-interest-area/>.

*Resources*

**The 8 semester plan of study is a recommended sequence of classes designed to show how this program can be completed within four years.** Visit [www.15toFinishIndiana.org](http://www.15toFinishIndiana.org) for information and resources.

**To learn more about this program**, go to <http://www.purduecal.edu/catalog/> and select the appropriate academic department.

**For career information**, check out “What Can I Do With this Major?” at <http://www.purduecal.edu/careerservices/majors/default.html>

**For Financial Aid eligibility,** go to <http://webs.purduecal.edu/ofasa/financial-aid/eligibility-for-financial-aid/>. Annual FAFSA filing deadline is March 10. Financial Aid recipients are required to complete 30 credits per calendar year to stay eligible for the standard financial aid award.

**Financial Guarantee:** If you follow the degree map and find a course unavailable, you may be able to take the course for free in a future semester. Certain exclusions apply. Please see guidelines at <http://webs.purduecal.edu/consumer-information/>.

**Degree Works** **allows you to track your progress toward degree completion**. Students are also encouraged to use the Planner tool in Degree Works in consultation with their academic advisor to build an academic plan that leads to on-time graduation. To access your program requirements in Degree Works, go to [https://mypuc.purduecal.edu](https://mypuc.purduecal.edu/cp/home/displaylogin) and log in to the myPUC portal with your username and password. Find Degree Works in the Degree Works/Advising Information tab in myPUC.

**Major: CMPE Conc: none CIP: 140901 Program: CENGR-BSCMPE Catalog Year: 2015-16 Revised 5/20/2015**

**THIS IS THE PROPOSED REVISIONS (changes marked in red)**

**College of Engineering, Mathematics, and Science**

**Degree – Bachelor of Science  
 Major: Computer Engineering**

| **Degree Requirements** | **Details** | | |
| --- | --- | --- | --- |
| Credit Hours | 122 credit hours For example, students starting a 120 credit hour program in Fall 2016 must complete a minimum of 15 credit hours per semester/30 credit hours per academic year to earn a Bachelor’s Degree on time in 4 years and graduate by May 2020. | | |
| Grade Point Average ( GPA) | Minimum 2.0 GPA overall and 2.0 average GPA in all ECE courses | | |
| Residency Rule | Complete at least 32 hours at the 30000 or higher course level at Purdue University Calumet (PUC campus) | | |
| Experiential Learning (E X L) | 2 courses approved with the E X L attribute. E X L courses are noted by (e) next to the course title. | | |
| General Education Core | Purdue University Calumet requires a minimum of 30 credit hours in the following General Education competencies: | | |
| English Composition (6 credits); Natural Science (3 to 4 credits);  Mathematics or Statistics (3 credits);  Humanities (3 credits); | Social Science (3 credits);  Speech Communication (3 credits); Computer Utilization (3 credit hours); | Wellness Education (1 to 3 credits); Technology in Society (3 credits); Freshman Experience Course (1 to 3 credits). |
| Some courses may fulfill more than one requirement. Additional General Education coursework may be required to achieve the minimum 30 credit hours. Only courses approved by University Senate will satisfy Gen Ed Requirements. (See Course Description under Important Links on the Academic Catalog web site at <http://www.purduecal.edu/catalog/>.) | | |

**Milestone Courses noted by (m) next to the course title** **have been identified as being critical to your success in this field of study.** Failure to master the subject matter in milestone courses may impact your ability to progress in your degree program. This may entail achieving higher grades than just the minimum noted in this plan of study. Review program requirements with your academic advisor to stay on track for graduation. **E X L courses are noted by (e) next to the course title**.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER 1 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| Integrated Calculus and Analytic Geometry I (m) | MA 16300 (m) | FA, SP | 5 | Yes | C |  |  | MA 15100 or MA 15900 or  MA 15400 |
| General Chemistry | CHM 11500 | FA, SP | 4 | Yes |  |  |  | MA 15300 |
| Fund. of Speech Comm. | COM 11400 | FA, SP | 3 | Yes |  |  |  |  |
| First year Seminar for Engineers | ENGR 18600 | FA | 1 | Yes |  |  |  |  |
| Elementary Engineering Design | ENGR 19000 | FA | 2 |  |  |  |  | MA 15900 |

| **SEMESTER 2 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Integrated Calculus and Analytic Geometry II (m) | MA 16400 (m) | FA, SP | 5 |  | C |  |  | MA 16300 |
| Mechanics (m) | PHYS 15200 (m) | FA, SP | 4 | Yes | C |  |  | MA 16300 |
| English Composition I | ENGL 10400 | FA, SP | 3 | Yes |  |  | ENGL 10000 ENGL 10800 | High School Grades |
| Software Tools for Engineers | ENGR 15100 | SP | 3 | Yes | C |  |  | Pre/Co-requisite: MA 16300 |

| **SEMESTER 3 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Multivariate Calculus (m) | MA 26100 (m) | FA, SP | 4 |  | C |  |  | MA 16400 |
| Electricity Optics | PHYS 26100 | FA, SP | 4 |  | C |  |  | PHYS 15200 and MA 16400 |
| Linear Circuit Analysis I (m) | ECE 20100 (m) | FA | 3 |  | C |  |  | MA 16400 and PHYS 15200; Pre/Co-requisite: ECE20700 |
| Electronic Meas. Techniques | ECE 20700 | FA | 1 |  | C |  |  | Pre/Co-requisite: ECE 20100 |
| Programming for Engineers | ECE 15200 | FA | 3 |  | C |  |  | ENGR 15100 |

| **SEMESTER 4 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Differential Equations | MA 26400 | FA, SP | 3 |  | C |  |  | MA 26100 |
| Linear Algebra | MA 26500 | FA, SP | 3 |  |  |  |  | MA 16400 |
| Linear Circuit Analysis II (m) | ECE 20200 (m) | SP | 3 |  | C |  |  | ECE 20100, MA 26100 & ECE 20700 |
| Intro to Digital System Design | ECE 27001 | SP | 4 |  | C |  |  | ECE 15200 and 20100 and 20700 |
| Object Oriented Program (m) | ECE 25100 (m) | SP | 3 |  |  |  |  | ECE 15200 |

| **SEMESTER 5 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Signals and Systems | ECE 30100 | FA | 3 |  |  |  |  | ECE 20200 and MA 26400; Pre/Co-requisite ECE 30101 |
| Signals and Systems Lab | ECE 30001 | FA | 1 |  |  |  |  | Pre/Co-requisite ECE 30100 |
| Data Structures | CS 27500 | FA | 3 |  |  |  |  | CS 12400 and MA 16300 |
| Engineering Project Management | ECE 31200 | FA | 3 |  |  |  |  |  |
| Microprocessor System Design & Interfacing | ECE 36201 | FA | 4 |  |  |  |  | ECE 27001 |

| **SEMESTER 6 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Discrete Math Structure | CS 30900 | SP | 3 |  |  |  |  | MA 16400 |
| Probabilistic Methods in Electrical Engineering | ECE 30200 | SP | 3 |  |  |  |  | ECE 20200; Pre/Co-requisite: ECE 30100 |
| Computer Organization & Design | ECE 37100 | SP | 3 |  |  |  |  | ECE 362XX |
| Written/Oral Communication for Engineers | COM/ENGL 30700 | FA, SP | 3 | Yes |  |  |  | ENGL 10400 or 10000 or 10800, and COM 11400 and ECE 20200 with “C” minimum grade |
| Analog & Digital Electronics | ECE 27500 | SP | 4 |  |  |  |  | ECE 20100 and ECE 20700;  Pre/Co-requisite ECE 20200 |

| **SEMESTER 7 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Senior Engineering Design I (e) | ECE 42900 (e) | FA, SP | 3 |  |  |  |  | See Note 1 |
| Intro to Communication Theory | ECE 44800 | FA | 4 |  |  |  |  | ECE 27500 and ECE 30100 and ECE 30200 |
| Software Engineering Design I | ECE 35400 | FA | 3 |  |  |  |  | ECE 25100 and CS 27500 |
| Computer Elective | See Note 2 | FA, SP | 3 |  |  |  |  |  |
| Social Science Elective | Any Gen Ed approved Social Science course | FA, SP | 3 | Yes |  |  |  |  |

| **SEMESTER 8 - Program Requirements (Course Title)** | **Subject Code/ Course Number** | **Semester Offered** | **Credit Hours** | **Gen Ed** | **Min Grade** | **Notes** | **Also Allowed** | **Pre/Co-requisite Courses** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Senior Engineering Design II (e) | ECE 43900 (e) | FA, SP | 3 |  |  |  |  | ECE 42900 |
| Computer Elective | See Note 2 | FA, SP | 3 |  |  |  |  |  |
| Computer Elective | See Note 2 | FA, SP | 3 |  |  |  |  |  |
| Free Elective | See Note 4 | FA, SP | 3 |  |  |  |  |  |
| Ethics for the Professions | PHIL 32400  See Note 3 | FA, SP | 3 | Yes |  |  |  |  |
| **Program Total** |  |  | **122** |  |  |  |  |  |

*Additional Information and Guidelines*

Note 1: Senior Engineering Design I - Prerequisite: COM/ENGL 30700 and ECE 31200. ~~and ECE 362XX and ECE 30100 and CS 27500, Penultimate semester; Pre/Co-requisite: ECE 27500 and ECE 37100~~. Department permission required. (Changes previously approved, taken from the current online course description.)

Note 2: Computer Engineering Electives - Any three courses selected from a list approved by the ECE faculty.

Note 3: Ethics for the Professions, PHIL 32400 - Please use section reserved for engineering students.

Note 4: The free elective, subject to approval by the advisor, can be almost any three-or-more-credit course. Not allowed are math, science, and technology courses that are lower-level than the required courses; such as MATH 15900 or 16019, CHM 10000, PHYS 22000, ECET 20900 and 21000; and FM and MSL courses

Students who do not receive a grade in a required ECE course that meets the minimum or better required for their plan of study in three attempts, including grades of W, will not be allowed to continue in Electrical or Computer Engineering programs.

Continuing students cannot transfer in credit for a required ECE course without prior approval of the Undergraduate Committee.

Students may elect to add a minor in Computer Science. The web site for BSCPE electives is <http://webs.purduecal.edu/ece/electives-by-interest-area/>.

*Resources*

**The 8 semester plan of study is a recommended sequence of classes designed to show how this program can be completed within four years.** Visit [www.15toFinishIndiana.org](http://www.15toFinishIndiana.org) for information and resources.

**To learn more about this program**, go to <http://www.purduecal.edu/catalog/> and select the appropriate academic department.

**For career information**, check out “What Can I Do With this Major?” at <http://www.purduecal.edu/careerservices/majors/default.html>

**For Financial Aid eligibility,** go to <http://webs.purduecal.edu/ofasa/financial-aid/eligibility-for-financial-aid/>. Annual FAFSA filing deadline is March 10. Financial Aid recipients are required to complete 30 credits per calendar year to stay eligible for the standard financial aid award.

**Financial Guarantee:** If you follow the degree map and find a course unavailable, you may be able to take the course for free in a future semester. Certain exclusions apply. Please see guidelines at <http://webs.purduecal.edu/consumer-information/>.

**Degree Works** **allows you to track your progress toward degree completion**. Students are also encouraged to use the Planner tool in Degree Works in consultation with their academic advisor to build an academic plan that leads to on-time graduation. To access your program requirements in Degree Works, go to [https://mypuc.purduecal.edu](https://mypuc.purduecal.edu/cp/home/displaylogin) and log in to the myPUC portal with your username and password. Find Degree Works in the Degree Works/Advising Information tab in myPUC.

**Major: CMPE Conc: none CIP: 140901 Program: CENGR-BSCMPE Catalog Year: 2015-16 Revised 5/20/2015**

1. <http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/> [↑](#footnote-ref-1)
2. <http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/> [↑](#footnote-ref-2)