School of: Professional Studies
Department: Engineering Technology
Prefix & Course Number: EET 4100
Course Title: Senior Project I
Banner course title (30 characters): Senior Project I
Check All That Apply: Required for Major: X Required for Minor: ___ Specified Elective: ___
Required for Concentration: ___ Elective: Service Course: ___

To receive Title IV financial aid funds, all institutions of higher education must comply with the federal definition of a credit hour. The Higher Learning Commission requires institutions to maintain policies and procedures for verifying compliance with this definition.

**Federal Credit Hour Definition:** A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than:

1. one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
2. at least an equivalent amount of work as required in paragraph (1) of this definition for other activities as established by an institution, including laboratory work, internships, practica, studio work, and other academic work leading toward the award of credit hours. 34CFR 600.2 (11/1/2010)

Credit Hours: 1 (0+2)

Face-to-Face or Equivalent Hours per course:

Lecture ____ Lab 30 Internship ____ Practicum ____ Other (please specify type and hours):

Additional Student Work Hours per course: 30

Schedule Type: A Grade Mode: L

Variable topics umbrella course: No X Yes ___ If Yes, number of credit hours allowed ___

Specified repeatable course: No X Yes ___

APPROVED:

[Signatures and dates]

Department Chair OR Program Director

Dean OR Associate Dean

Associate VP, Academic and Student Affairs

*If crosslisted, attach completed Course Crosslisting Agreement Form*
Prefix and Course Number: EET 4100
Prerequisite(s): COM 2610; EET 3120 and EET4370 all with grades of “C” or better; and senior standing
Corequisite(s): _____
Prerequisite(s) or Corequisite(s): _____

Banner Enforced:
Prerequisite(s): COM 2610; EET 3120 and EET4370 all with grades of “C” or better; and senior standing
Corequisite(s): _____
Prerequisite(s) or Corequisite(s): _____

Registration restrictions: Level Senior Class _____ Program/Major _____ Student attribute _____

Catalog Course Description:
This is a Senior Experience, capstone course designed to teach engineering design skills to students through project based learning. The course will focus on team project incorporating the application of fundamental engineering knowledge and skills. Projects requires planning and design in consultation with faculty advisors and industry contacts. Through this course the students will learn the design process in a hands on way through conceptualization, construction, testing and presenting a deliverable project.

Specific Variable Topics Course Description (if applicable, umbrella course description included above):

Required Reading and Other Materials will be equivalent to:

Specific, Measurable Student Behavioral Learning Objectives:
Upon completion of this course the student should be able to:
1. Integrate and apply the knowledge gained in the EET education to develop, design, and document a technology-based project (appropriate to their concentrations) with completion in EET 4110 Senior Project II.
2. Create a formal presentation of the project technology, projected cost and design implementation.

Detailed Outline of Course Content:
I. Orientation
   A. Course Goals
   B. Project Selection Criteria
   C. Research Methods and References

II. Design Project research methods

III. Design Project planning and design techniques

IV. Project Management techniques

V. Final critical Design Review

Evaluation of Student Performance:
1. Written technical report
2. Brief oral report
REQUEST FOR NEW OR CONTINUED SENIOR EXPERIENCE DESIGNATION

(SENIOR EXPERIENCE)

(To accompany old and new regular syllabus form and Curriculum Change Proposal forms)

Date: October 4, 2013
School: School of Professional Studies
Department: Engineering Technology

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<tr>
<th>Prefix</th>
<th>Course Number</th>
<th>Credit Hours</th>
<th>Contact Hours</th>
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<td>4100</td>
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Title: Senior Project I (0+2)

Prerequisites: COM 2610; EET 3120 and EET 4370 all with grades of “C” or better; satisfaction of all General Studies course requirements with a cumulative GPA of 2.0 or higher; and senior standing

Corequisites: ______

Recommended maximum enrollment per section: 15

Current Course Status (check all that apply)

☐ New course
☒ Existing Senior Experience Course

Criteria for Senior Experience

The following criteria must be addressed for all courses seeking Senior Experience designation.

Please type on this form; it will expand to accommodate any length of text.

The Senior Experience must allow students to:

1. synthesize learning through critical analysis and logical thinking.
   The student in EET 4100 is given the goals and criteria of the course. In consultation with the faculty member the student selects and plans a design project.

2. apply theoretical constructs to practical applications.
   The student does preliminary design work on the design project demonstrating analysis and synthesis of skills learned as a major. (Subsequent completion of the design and construction of the project occur in the companion course EET 4110). The student does much of the work independently, with the faculty member acting as a consultant.
3. critique philosophical tenets and current practices. Students are required to research current industry design methods and reference them in the final written technical report.

4. integrate and refine oral and/or written communication skills. The student must complete a written design proposal and give a formal presentation of the proposal.

5. verify their expertise. The final assignment is a written technical report and presentation on the preliminary design.

Approvals:

Department Curriculum Committee / Date

Department Chair OR Program Director/ Date

School Curriculum Committee / Date

Dean or Associate Dean / Date

Chair, Faculty Senate Curriculum Committee / Date

Associate Vice President, Academic Affairs/Date