REGULAR COURSE SYLLABUS

College of: Professional Studies

Department: Engineering and Engineering Technology

Prefix & Course Number: SSE 3000

Course Title: Applied Systems Design

Transcript course title (30 characters): APPLIED SYSTEMS DESIGN

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: 3 (2+2)

Face-to-Face or Equivalent Hours per course:

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

Additional Student Work Hours per course: 75

Schedule Type:  Grade Mode: L

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

Specified repeatable course: No X Yes ___

APPROVED: ________________ 10/12/2015

Department Chair/Institute Director

Dean

Associate VP, Academic Affairs

Date

Date

Date

*If crosslisted, attach completed Course Crosslisting Agreement Form
Prefix and Course Number: SSE 3000

Prerequisite(s): SSE2200, SSE3135 AND SSE3160 with ‘C’ or better grades, or permission of instructor

Corequisite(s): ____________

Prerequisite(s) or Corequisite(s): ____________

Banner Enforced:

Prerequisite(s): SSE2200, SSE3135 AND SSE3160 with ‘C’ or better grades

Corequisite(s): ____________

Prerequisite(s) or Corequisite(s): ____________

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

Catalog Course Description:
In this course students will be introduced to the engineering design process and skills through project based learning. The course focuses on both systems and traditional design process and application of those through team projects. Students will learn both systems approach as well as the fundamental engineering design process. The students will apply the aforementioned methodology to a real-world project. Through this course the students will conceptualize, construct, test and present a deliverable project.

Required Reading Materials:

Specific Measurable Student Behavioral Learning Objectives
Upon completion of this course the student should be able to:

1. Exhibit knowledge of the fundamental engineering design process
2. Exhibit knowledge of systems approach to design problems
3. Recognize a need, define a problem statement as related to design
4. Conceptualize, plan, and implement a project following fundamental design process guidelines
5. Design and execute appropriate test procedures
6. Present design

Detailed Outline of Course Content:
I. Introduction to Fundamental Design Process
II. Systems Approach to Design
III. Successful Project Implementation
   A) Project Organization
   B) Gantt Chart and time management
   C) Teamwork
IV. Proposal of Project
V. Design Process applied to chosen project
VI. Designed testing procedure
VII. Construction and testing of project
VIII. Project reporting and deliverables
IX. Oral Presentation
Prefix and Course Number: SSE 3000

EVALUATION OF STUDENT PERFORMANCE:
1. Assignments
2. Examinations
3. Project Report and Presentation
4. Final Examination