Cover Sheet: Request 11018

EGS 4XXX - Advanced Engineering Leadership Development

Info

Process	Course|New|Ugrad/Pro
Status	Pending
Submitter	Mcelroy,William J mcelrowj@eng.ufl.edu
Created	6/7/2016 1:14:43 PM
Updated	10/25/2016 12:12:46 PM
Description of request	This course is designed to further develop the leadership framework and capabilities of engineering students. It involves a case study-based instructional approach that reviews and applies strategic leadership concepts and knowledge critical to the success of engineering-based companies that now operate in a highly-uncertain and volatile business environment.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	ENG - Engineering - General 011940001	Caple, Elizabeth		6/10/2016
Added EIN 4905_ESI 6900_AELD Syllabus.pdf					6/7/2016
College	Recycled	ENG - College of Engineering	Caple, Elizabeth		6/10/2016
No document changes					
Department	Approved	ENG - Engineering - General 011940001	van Oostrom, Hans		8/22/2016
No document changes					
College	Approved	ENG - College of Engineering	Caple, Elizabeth		10/17/2016
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			10/17/2016
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					

Step	Status	Group	User	Comment	Updated
No document changes					

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Created: 6/7/2016 1:14:43 PM
Form version: 1

Responses
Recommended PrefixEGS
Course Level 4
Number xxx
Lab Code None
Course Title Advanced Engineering Leadership Development
Transcript Title Adv. Eng. Ldrshp Dev.
Effective Term Earliest Available
Effective Year Earliest Available
Rotating Topic?No
Amount of Credit3

Repeatable Credit?No

S/U Only?No
Contact Type Regularly Scheduled
Degree Type Baccalaureate

Weekly Contact Hours 3
Category of Instruction Joint (Grad/Pro)
Delivery Method(s) On-Campus
Course Description This course is designed to further develop the leadership framework and capabilities of undergraduate engineering students. It involves a case study-based instructional approach that reviews and applies strategic leadership concepts and knowledge critical to the success of engineering-based companies that now operate in a highly-uncertain and volatile business environment.
Prerequisites EGS 4038 or instructor approval
Co-requisites none
Rationale and Placement in Curriculum Like most modern-day businesses, engineering-based industries and companies must also survive and grow in an uncertain and rapidly-changing business environment. Engineering leaders must help their organizations become "learning machines", integrating strategic intent in the way they think, behave and influence their organization and the staff. Leaders who learn, practice and effectively apply strategic leadership skills can catalyze the organization's learning process and help create and sustain competitive advantage. This course extends the comprehensive leadership learning and development process for undergraduate engineering students into the subject of strategic leadership. Course completion is one of the prerequisites for obtaining the Engineering Leadership Certificate to be offered by the Herbert Wertheim College of Engineering.

Course Objectives Assist students in developing and applying engineering leadership skills with strategic intent, and evaluate and manage the learning process of strategic

leadership in organizations. Improve students' abilities to interpret and analyze ambiguous technical and/or economic situations, vet and resolve complex issues, and make decisions more effectively, within a strategic and ethical leadership framework.

Course Textbook(s) and/or Other Assigned Readinga. Title: Becoming a Strategic Leader – Your Role in Your Organization's Enduring Success
b. Author: Hughes, R.L., Beatty, K.C. and D.L. Dinwoodie
c. Publication date and edition: 2014, 2nd Edition
d. ISBN number: 978-1-118-56723-4

a. Title: The Good Struggle – Responsible Leadership in an Unforgiving World
b. Author: Badaracco, Joseph L.
c. Publication date and edition: 2013
d. ISBN number: 978-1-4221-9164-4

Students will be required to purchase a course packet of pre-selected case studies (which may vary each semester) from a publisher such as Harvard Business Review . (Example: "Tesla Motors", Evic Van Den Steen, HBR 9-714-413, Rev. Dec. 17, 2015.) Electronic copies of course notes and materials will be provided through the Canvas course website.

In addition to case study materials, students will have additional (typically weekly) reading assignments that will be posted in the course schedule and available electronically through either the University library system or the Canvas course website.

Weekly Schedule of Topics The outline of expected topics to be covered each week is summarized below. The actual outline is subject to change at the course instructor's discretion as reflected in the updated course schedule:

Week General Topics
1   course overview; summary of key leadership concepts; the concept of engineering leadership
2   the concept of strategic leadership; overview of key business fundamentals
3   concepts of strategy and industry analysis; concept of competitive advantage
4   concept of competitive advantage (cont.); innovation as a leadership strategy
5   strategic leadership and the concept of Blue Ocean Strategy
6   organizational vision, mission, values; the concept of ethical leadership
7   innovation and ethics
8   innovation and ethics (cont.)
9   design-thinking; decision-making
10   decision-making (cont.)
11   risks and risk management
12   risks and risk management (cont.)
13   accountability, leadership and crises
14   strategic leadership in a global context
15   leading strategic change
16   class summary and close-out

Grading Scheme The base learning framework will be similar for both graduate and undergraduate students in that they will have the same course schedule, receive the same lecture materials, receive most of the same reading assignments, and receive most of the same case study homework assignments. Class requirements for graduate students will differ in several ways. They will receive supplemental, more in-depth reading assignments, and additional individual homework assignments corresponding to the assigned reading and case-study materials. Testing formats and content (as applicable) will be similar for all students, although the test content may differ for the graduate student group to match higher level course requirements.
Final grades will be determined as follows:
•   Brief weekly readiness assurance quizzes (RAQs) may be given based on the

assigned readings. The RAQs will count for 20%.
•   Case study assignments will count for 80%. For team-based assignments, each team member will receive the same score for those assignments (provided they participated).

The student's final class grade will be rounded up to the nearest integer and assigned based on the College grade scale:
A = 90 or above

C = 70 - 73
A- = 87 – 89

C- = 67 - 69
B+ = 84 – 86

D+ = 64 - 66
B = 80 – 83

D = 60 - 63
B- = 77 – 79

D- = 57 - 59
C+ = 74 – 76

E = 56 or below

For undergraduate students, a grade of C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

For graduate students need an overall GPA of 3.00 truncated and a 3.00 truncated GPA in their major (and in the minor, if a minor is declared) is needed for graduation. For more information on grades and grading policies, please visit: http://gradcatalog.ufl.edu/content.php?catoid=4&navoid=907#grades

Additional Links and Policies Attendance and Expectations: Attendance is mandatory at all sessions, and more than one unexcused absence can result in a loss of a letter grade per each absence over one at the discretion of the instructor, subject to the UF attendance policies. Students are expected to arrive to class on time and to remain in class through completion of final class session. Excessive student use of electronic devices during class sessions, for non-class purposes, may be considered by the instructor as an unexcused absence for that day. Students are expected to come to class prepared (including completion of all assigned readings) to actively participate in class discussions and activities. Unless stated otherwise, assignments are to be submitted via Canvas by the stated deadline. Late submissions may be accepted by the instructor for partial credit, subject to the policies of the undergraduate (https://catalog.ufl.edu/ugrad/current) or graduate (http://gradschool.ufl.edu/students/catalog.html) catalogues, as appropriate.

Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Honesty Policy – UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers

to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Note that failure to comply with this commitment will result in disciplinary action compliant with the UF Student Honor Code Procedures.
See http://www.dso.ufl.edu/sccr/procedures/honorcode.php

Accommodation for Students with Disabilities – Students Requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

UF Counseling Services –Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:
· UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, http://www.counseling.ufl.edu/cwc/Default.aspx, counseling services and mental health services.
· Career Resource Center, Reitz Union, 392-1601, career and job search services.
        University Police Department 392-1111

Software Use – All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

Instructor(s) William J. (Bill) McElroy, P.E., Assistant Director, Engineering Leadership Institute, Herbert Wertheim College of Engineering

Syllabus
Advanced Engineering Leadership Development
(Currently EIN 4905 and ESI 6900)

1. **Catalog Description:** This course is designed to further develop the leadership framework and capabilities of engineering students. It involves a case study-based instructional approach that reviews and applies strategic leadership concepts and knowledge critical to the success of engineering-based companies that now operate in a highly-uncertain and volatile business environment.

2. **Credit Hours:** 3
   Graduate students will not receive graduate credit for taking the undergraduate version of the class. They are allowed to enroll in the undergraduate section, but the credits will then not count toward the degree.

3. **Prerequisites:** EGN 4038 or instructor approval for undergraduate students; EGN 6039 or instructor approval for graduate students.

4. **Course Objectives:** Like most modern-day businesses, engineering-based industries and companies must also survive and grow in an uncertain and rapidly-changing business environment. Engineering leaders must help their organizations become "learning machines", integrating strategic intent in the way they think, behave and influence their organization and the staff. Leaders who learn, practice and effectively apply strategic leadership skills can catalyze the organization's learning process and help create and sustain competitive advantage. This course extends the comprehensive leadership learning and development process for graduate engineering students into the subject of strategic leadership. Course completion is one of the prerequisites for obtaining the undergraduate Engineering Leadership Certificate to be offered by the Herbert Wertheim College of Engineering.

   Specific learning objectives are to: Assist students in developing and applying engineering leadership skills with strategic intent, and evaluate and manage the learning process of strategic leadership in organizations. Improve students' abilities to interpret and analyze ambiguous technical and/or economic situations, vet and resolve complex issues, and make decisions more effectively, within a strategic and ethical leadership framework

5. **Contribution of course to meeting the professional component:** N/A as course is not specific to a major under ABET purview.

6. **Relationship of course to program outcomes:** N/A as course is not specific to a major under ABET purview.

7. **Instructor:** Bill McElroy, P.E., Assistant Director, Engineering Leadership Institute, University of Florida Herbert Wertheim College of Engineering
   a. Office location: Weil Hall Room 313B

  b. Telephone: office @ 352-294-7383
  c. E-mail address: mcelrowj@eng.ufl.edu
  d. Web site: UF course Canvas web site
  e. Office hours: flexible, by appointment
  f. Teaching assistant: none

Notice: Please send email messages to the instructor's primary email address mcelrowj@eng.ufl.edu. Only use the Canvas course website mail for requests or actions that are not urgent.

8. **Meeting Times (Fall 2016):** Friday, Periods 2 - 4 (8:30 am to 11:30 am)

9. **Class/laboratory schedule:** The course will be delivered weekly in the 3-hour segments typically through class discussions/workshops regarding case study assignments and/ or key topics facilitated by the instructor, and supported by selected guest presenters, class lectures and presentations. Students will have access to an updated course schedule that outlines the expected coverage of topics each week, as well as the reading requirements and expected classroom discussions and activities for that week.

10. **Meeting Location (Fall 2016):** Little Hall, 113

11. **Material and Supply Fees:** none

12. **Textbooks and Software Required:**

  a. Title: <u>Becoming a Strategic Leader – Your Role in Your Organization's Enduring Success</u>
  b. Author: Hughes, R.L., Beatty, K.C. and D.L. Dinwoodie
  c. Publication date and edition: 2014, 2nd Edition
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13. **Additional Readings**: In addition to case study materials, students will have additional (typically weekly) reading assignments that will be posted in the course schedule and available electronically through either the University library system or the Canvas course website.

14. Course Outline: The outline of expected topics to be covered each week is summarized below. The actual outline is subject to change at the course instructor's discretion as reflected in the updated course schedule:

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