

Cover Sheet: Request 11543

EGS 4627 Applied Engineering Project Management

Info

Process	Course New Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	William Mcelroy mcelrowj@eng.ufl.edu
Created	3/9/2017 10:31:45 AM
Updated	2/23/2018 4:44:30 PM
Description of request	Applied Engineering Project Management expands on foundational project management practices to include complex as well as new project delivery concepts. Topics include project acquisition; negotiation skills; advanced risk planning and management; program management; project life cycle models and their applicability; and diagnostics and remedies for problem projects. UCC form documenting requested coordination with ISE is provided.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	ENG - Engineering - General 011940001	Johannes Van Oostrom	Reviewed by IE3 faculty and advisory board	3/28/2017
No document changes					
College	Conditionall Approved	ENG - College of Engineering	Heidi Dublin	Conditionally approved by Curriculum Committee pending consult with ISE Department.	4/7/2017
No document changes					
Department	Approved	ENG - Engineering - General 011940001	Johannes Van Oostrom	Consult has been added. This is already approved by the CCC, and can now go to Faculty Council/Department Faculty	11/15/2017
Applied Engineering Project Management Undergrad syllabus_v4_Spring 2018.docx					10/3/2017
UCC Consult Applied Engineering Project Management.pdf					11/15/2017
College	Approved	ENG - College of Engineering	Heidi Dublin	Approved by Curriculum Committee and Faculty Meeting on 2/23	2/23/2018
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			2/23/2018
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					

Step	Status	Group	User	Comment	Updated
College Notified					
No document changes					

Course|New for request 11543

Info

Request: EGS 4627 Applied Engineering Project Management

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Submitter: William Mcelroy mcelrowj@eng.ufl.edu

Created: 10/3/2017 1:35:51 PM

Form version: 4

Responses

Recommended Prefix EGS

Course Level 4

Number 627

Category of Instruction Joint (Ugrad/Grad)

Lab Code None

Course Title Applied Engineering Project Management

Transcript Title AppEngr Project Mgmt

Degree Type Baccalaureate

Delivery Method(s) On-Campus

Co-Listing Yes

Co-Listing Explanation The base learning framework will be similar for both graduate and undergraduate students in that they will have the same course schedule, lecture materials, reading assignments, and some of the same homework assignments. The assignment requirement for graduate students will differ in that they will prepare a semester-long capstone project execution plan (for a project of their choosing, subject to approval by the instructor.)

Graduate student final grades will be determined as follows:

- o Assignments (up to 10 total) will count for 75% of the grade. Up to 50% of the assignments will be individual-based, with the remainder being team assignments. Each assignment may or may not include a brief presentation of results; if included, presentations will contribute up to 20% of the team or individual score for the assignment.

- o Preparation of a semester-long capstone project execution plan (for a project of their choosing, subject to approval by the instructor) that will count for 25% of the grade. The plan will consist, at a minimum, of development of project requirements, charter, work scope, WBS, network diagram, risk assessment, schedule, budget, quality objectives, and health and safety considerations.

Effective Term Spring

Effective Year 2018

Rotating Topic? No

Repeatable Credit? No

Amount of Credit 3

S/U Only? No

Contact Type Regularly Scheduled

Weekly Contact Hours 4 to 6

Course Description Applied Engineering Project Management expands on foundational project management practices to include complex as well as new project delivery concepts. Topics include project acquisition; negotiation skills; advanced risk planning and management; program management; project life cycle models and their applicability; and diagnostics and remedies for problem projects.

Prerequisites EGS 4625, Fundamentals of Engineering Project Management, or equivalent (with permission of the instructor)

Co-requisites none

Rationale and Placement in Curriculum Course is an elective as part of the Engineering Leadership Institute Curriculum and is not specific to a major under ABET purview. Course completion is expected to be one of the prerequisites for obtaining the Engineering Project Management Certificate that may be offered by the Herbert Wertheim College of Engineering in the future.

Course Objectives Following successful completion of this course, students will be able to:

- Construct project selection matrices and evaluate and develop business-case cost-benefit analyses consistent with business enterprise strategies
- Develop and conduct negotiation strategies and tactics under a variety of scenarios
- Conduct risk assessments and risk management plans using complex case studies
- Manage and lead multi-locational program and portfolio teams
- Demonstrate proficiency in standard project management tools to plan, monitor, and control projects
- Understand multiple project delivery life cycle models and their applicability to specific project needs
- Diagnose and develop fix-up techniques and approaches for problem projects

Course Textbook(s) and/or Other Assigned Reading a. Title: Project Management: The Managerial Process (All Sections)

b. Author: Larson, Eric W. and Clifford F. Gray

c. Publication date and edition: 2014, Sixth Edition

d. ISBN number: 978-0-07-809659-4

Students should expect to have additional reading assignments and materials that will be outlined in the detailed course schedule provided by the instructor in Canvas. Reading materials will be available electronically through the University library system or through postings on the Canvas course website (for example, Project Selection in Project Portfolio Management: An Artificial Neural Network Model Based on Critical Success Factors, International Journal of Project Management).

Weekly Schedule of Topics The course will be delivered weekly in 3-hour segments typically through lecture and/or discussion overviews by the instructor, guest presenters, topic-supportive videos and student preparation and presentations of both individual and team assignments. 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.

The outline of expected topics to be covered each week is summarized below. The actual outline, as well as dates for assignments and content coverage, are subject to change at the course instructor's discretion. These will be reflected in the updated course schedule that students will have access to via the Canvas website:

Week Topics

- 1 Course overview and linkages to complete PM concepts, management and leadership principles
- 2 Key concepts of business pursuit approaches, overall alignment with enterprise's business model, and project acquisition strategies
- 3,4 Negotiation skills - getting to an acceptable agreement
- 5,6 Case study in complex risk assessment, planning and management
- 7,8,9 Approaches to complex program/portfolio management issues and concepts-dashboards, communications, virtual teams and consistency
- 10,11,12 Cost, schedule and earned-value management of programs and portfolios, using standard cost/pricing tools and Microsoft Project to plan, monitor and control delivery
- 13, 14 Comparison of multiple project life cycle models with an emphasis on Agile methodologies
- 15 Trouble-shooting strategies and techniques for problem project fix-up

Links and Policies Attendance Policy, Class Expectations, and Make-Up Policy: Attendance is mandatory at all sessions, and more than one unexcused absence can result in a loss of a letter grade at the discretion of the instructor, subject to the UF attendance policies. Excused absences are consistent with university policies in the undergraduate (<https://catalog.ufl.edu/ugrad/current>) catalog and require appropriate documentation. Students are expected to arrive to class on time and to remain in class through completion. 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 as a pdf file by the stated deadline. Late submissions may be accepted by the instructor for partial credit, subject to the policies of the undergraduate or graduate catalogs, as

appropriate.

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, psychological and psychiatric services
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

University 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 (<https://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.

Software Use

All faculty, staff, and students 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.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:
<http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.
<https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

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On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>

Grading Scheme The grade scale for the student total class score is:

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, visit:
<https://catalog.ufl.edu/ugrad/current>

Undergraduate student final grades will be determined as follows:

o Assignments (up to 10 total) will count for 100% of the grade. Up to 50% of the assignments will be individual-based, with the remainder being team assignments. Each assignment will include a brief presentation of results. Presentations will contribute 20% of the team or individual score for the assignment.

Instructor(s) John W. Caldwell, PhD, Adjunct Professor
Engineering Leadership Institute, University of Florida Herbert Wertheim College of Engineering

Syllabus
Applied Engineering Project Management

EGS 4627 (Undergraduate Students)

Class Periods: TBD

Class Location: TBD

Academic Term: Fall 2017

1. **Instructor:** John W. Caldwell, PhD, Adjunct Professor
Engineering Leadership Institute, University of Florida Herbert Wertheim College of Engineering
 - a. E-mail address: johnwcaldwell@ufl.edu
 - b. Office Telephone: 949/500-4037
 - c. Office hours: By appointment on scheduled class days
 - d. Web site: UF course Canvas web site
 - e. No teaching assistant

2. **Course Description:** *Applied Engineering Project Management* expands on foundational project management practices to include complex as well as new project delivery concepts. Topics include project acquisition; negotiation skills; advanced risk planning and management; program management; project life cycle models and their applicability; and diagnostics and remedies for problem projects.

3. **Credit Hours:** 3

4. **Course Pre-Requisites/Co-Requisites:** EGS 4625, Fundamentals of Engineering Project Management, or equivalent (with permission of the instructor)

5. **Course Objectives:** Following successful completion of this course, students will be able to:
 - Construct project selection matrices and evaluate and develop business-case cost-benefit analyses consistent with business enterprise strategies
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 - Conduct risk assessments and risk management plans using complex case studies
 - Manage and lead multi-locational program and portfolio teams
 - Demonstrate proficiency in standard project management tools to plan, monitor, and control projects
 - Understand multiple project delivery life cycle models and their applicability to specific project needs
 - Diagnose and develop fix-up techniques and approaches for problem projects

Course completion is expected to be one of the prerequisites for obtaining the Engineering Project Management Certificate that may be offered by the Herbert Wertheim College of Engineering in the future.

6. **Material and Supply Fees:** not applicable
7. **Professional Component (ABET):** Not applicable as course is not specific to a major under ABET purview.
8. **Relation to Program Outcomes (ABET):** Not applicable as course is not specific to a major under ABET purview.
9. **Required Textbooks and Software:**
 - a. Title: Project Management: The Managerial Process (All Sections)
 - b. Author: Larson, Eric W. and Clifford F. Gray
 - c. Publication date and edition: 2014, Sixth Edition
 - d. ISBN number: 978-0-07-809659-4

Microsoft Project will be available to all enrolled students free of charge through the College of Engineering's Dreamspark portal. Ability to create pdf files is also required as well as Microsoft Excel or equivalent.

10. **Recommended Materials:** Students should expect to have additional reading assignments and materials that will be outlined in the detailed course schedule provided by the instructor in Canvas. Reading materials will be available electronically through the University library system or through postings on the Canvas course website. (see representative readings at the end of this syllabus)
11. **Course Schedule:** The course will be delivered weekly in 3-hour segments typically through lecture and/or discussion overviews by the instructor, guest presenters, topic-supportive videos and student preparation and presentations of both individual and team assignments. 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.

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13. Evaluation of Grades: The base learning framework will be similar for both graduate and undergraduate enrolled students in that they will have the same course schedule, lecture materials, reading assignments, and some of the same homework assignments. The assignment requirement for graduate students will differ in that they will prepare a semester-long capstone project execution plan (for a project of their choosing, subject to approval by the instructor.)

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16. Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. 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/>.

17. University Honesty Policy

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19. Student Privacy

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Representative course readings



Available online at www.sciencedirect.com

ScienceDirect

International Journal of Project Management 33 (2015) 1744–1754

International Journal of
**Project
Management**
www.elsevier.com/locate/ijproman

Project selection in project portfolio management: An artificial neural network model based on critical success factors



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Available online at www.sciencedirect.com

ScienceDirect

International Journal of Project Management 33 (2015) 126–139

International Journal of
**Project
Management**
www.elsevier.com/locate/ijproman

Successful project portfolio management beyond project selection techniques: Understanding the role of structural alignment



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Available online 31 March 2014

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
_____	_____
Phone Number	E-mail
_____	_____
Comments	

Department	Name and Title
_____	_____
Phone Number	E-mail
_____	_____
Comments	

Department	Name and Title
_____	_____
Phone Number	E-mail
_____	_____
Comments	