Advanced Practices in Engineering Project Management

EGS 6628
Sections 1FE2 (17382), 2FED (17383), CAMP (17381)

Class Location: Online Only
Academic Term: Spring 2024

Instructor: John W. Caldwell, PhD, Adjunct Instructional 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 only via conference or Zoom call
   d.   Web site: UF course Canvas web site

Course Description: Advanced Practices in Engineering Project Management expands on foundational project management practices to include complex as well as updated project delivery concepts. Topics include project acquisition; negotiation skills; advanced risk planning and management; program management; project delivery under various scenarios, and complex project simulations.

Credit Hours: 3

Course Pre-Requisites/Co-Requisites: EGS 4625/6626, Fundamentals of Engineering Project Management, or equivalent (with permission of the instructor)

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

- Create project selection matrices and analyze business-case cost-benefit information to assure consistency with business enterprise strategies
- Identify and conduct negotiation strategies and tactics under a variety of scenarios
- Analyze and evaluate post-mortem failure histories of complex engineering projects
- Evaluate, describe, and summarize the logistics required to establish multi-locational program teams
- Demonstrate proficiency in standard project management tools to plan, monitor, and control projects
- Compare and contrast multiple project delivery life cycle models and their applicability to specific project needs
- Anticipate, plan, and respond to complex project delivery problems in a simulated environment
- Devise, plan and write a detailed Project Execution Plan

Course completion is one of the prerequisites for obtaining the Graduate Engineering Project Management Certificate offered by the Herbert Wertheim College of Engineering.

Material and Supply Fees: not applicable

Required Textbooks and Software:

   e.   Title: Project Management: The Managerial Process (All Sections)
   f.   Author: Larson, Eric W. and Clifford F. Gray
   g.   Publication date and edition: 2021, 8th Edition
   h.   ISBN number: 978-1-26-415165-3; copies are also available in the library.

Microsoft Project will be available to all enrolled students free of charge. The ability to create pdf files is also required as well as Microsoft Excel or equivalent.

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.

Additional case study materials for the Negotiations and Project Simulation modules will be required to be purchased from Harvard Business Publishing at a total cost of $21.20USD.

Course Schedule: The course will be delivered in weekly or multi-week modules typically through video lecture concept introduction, online discussion overviews by the instructor and students, and student preparation and presentations of assignments that apply the concepts learned. Students will have access to an updated course schedule that outlines in detail the coverage of topics for each module, as well as the schedule, reading requirements and expected discussions and activities for that module via Canvas. An overview of topics to be delivered each week is summarized below.

EGS6628 COURSE DELIVERY OUTLINE – SPRING 2024

Week #	Week Beginning	Module	Topic	Readings
1	1/8/2024	1	Introduction, Syllabus Review and Quiz, PxP Overview	Listed in Canvas;
2[a]	1/15/2024	2	Business Pursuit Strategies	Listed in Canvas
3	1/22/2024	2	Business Pursuit Strategies	Listed in Canvas
4	1/29/2024	3	Negotiations Concepts & Skills	Listed in Canvas
5	2/5/2024	3	Negotiations Concepts & Skills	Listed in Canvas
6	2/12/2024	4	Post-Mortem Engineering Project Failure Analysis	Listed in Canvas
7	2/19/2024	4	Post-Mortem Engineering Project Failure Analysis	Listed in Canvas
8	2/26/2024	5	Program Management	Listed in Canvas
9	3/4/2024	5	Program Management	Listed in Canvas
10[b]	3/11/2024		Spring Break	
11	3/18/2024	6	Earned Value Management	Listed in Canvas
12	3/25/2024	6	Earned Value Management	Listed in Canvas
13	4/1/2024	7	Agile Application in Engineering Projects	Listed in Canvas
14	4/8/2024	8	Project Simulations	Listed in Canvas
15	4/15/2024	8	Project Simulations	Listed in Canvas
16[c]	4/22/2024		Capstone PxP	---

[a] Holidays are 1/15/2023 (Martin Luther King Day)
[b] Spring Break
[c] Reading Days are 4/25-4/26/2024

Attendance Policy, Class Expectations, and Make-Up Policy: As this is an online course, there are no scheduled classes or mandatory meeting times. However, participation is mandatory in all assignments, and more than one unexcused participation in an assignment can result in a loss of most or all the assignment points at the discretion of the instructor. Excused absences must be consistent with university policies in the Graduate Catalog (https://catalog.ufl.edu/graduate/regulations) and require appropriate documentation. Additional information can be found here: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/. Students are expected to be prepared (including completion of all assigned readings) to actively participate in scheduled online 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 graduate catalog, as appropriate.

Evaluation of Grades: The base learning framework is the same for all students. Allocation of points for individual and team assignments, the single Syllabus quiz, and the semester-long Capstone Project is shown in the following table (points are approximate as assignments may change slightly):

Assignments	Total Points	% of Final Grade
Individual	802	83%
Team Negotiations	60	6%
Syllabus quiz	10	1%
Capstone Project	95	10%
Totals	967	100%

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

Total %	Grade	Grade Points
90.0-100.0	A	4.00
87.0-89.9	A-	3.67
84.0-86.9	B+	3.33
81.0-83.9	B	3.00
78.0-80.9	B-	2.67
75.0-77.9	C+	2.33
72.0-74.9	C	2.00
69.0-71.9	C-	1.67
66.0-68.9	D+	1.33
63.0-65.9	D	1.00
60.0-62.9	D-	0.67
0-59.9	E	0.00

There will be no curving of the final grade.

More information on UF grading policy may be found at:
UF Graduate Catalog
Grades and Grading Policies

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

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://sccr.dso.ufl.edu/process/student-conduct-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.

Commitment to a Safe and Inclusive Learning Environment
The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values, including the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information, and veteran status.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:
• Your academic advisor or Graduate Program Coordinator
• HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
• Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
• Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

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: https://registrar.ufl.edu/ferpa.html

Other Specific Policies and Expectations

Use of A.I.: If you choose to use A.I. (ChatGPT or BingAI) in completing any of your work in this class, please note the following guidelines must be followed:

- Be aware of the limits of the A.I. tools. The results you get are very dependent on the prompts you use and how well you define those prompts. The numbers and facts you may get could be completely wrong so unless you can independently confirm the results through another source, do not trust that they are correct. You will be responsible for any incorrect numbers or facts you get from using the tool.
- A.I. is a tool and, as such, you must acknowledge that you used it in completing any work for the class. You must include a paragraph at the end of any assignment in which you used AI explaining how you used it and what prompts you used to get the results. Failure to do so may be considered a violation of academic honesty policy.

Campus Resources:

<u>Health and Wellness</u>

U Matter, We Care:
Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: https://counseling.ufl.edu, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence
If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

<u>Academic Resources</u>

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

Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling; https://career.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://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/;https://care.dso.ufl.edu.

On-Line Students Complaints*: https://distance.ufl.edu/getting-help/; https://distance.ufl.edu/state-authorization-status/#student-complaint.*