

Syllabus: Sustainability Project Design, SUS 3999 Florida Institute of Technology – Aug. 2020

Course Description

Basic components of project management are developed to: a) build skills in project management and quality control, and b) support the initial design of an individual or team sustainability project for majors and minors in the Florida Tech sustainability program. Students will also be instructed in green project management (GPM), with a partial focus on certification standards. This 3 credit course is the initiation of the sustainability capstone project concluding in the spring semester with SUS 4000, Applied Sustainability. The project planning can be on or off the F.I.T. campus. Students evaluate multiple alternatives and develop product goals, objectives, timelines, cost-estimates, and short- and long-term operations plan. Guest lectures by experts in GPM are included. Pre-requisite/Co-requisite: SUS 1500 Intro to Sustainability.

When, Where, Who

Day and Time: Wed 3:00 - 5:20, depending on 1, 2 or 3 credits.

Location: Skurla Bldg., Rm 116 and by Zoom. Canvas will be the web portal.

[Dr. K. Lindeman](#), Professor, Program in Sustainability, OEMS

Office: Shepard Bldg. Room 103. Meetings at the building will be socially distanced with masks.

Office Hours: Tue 2:00 - 4:00; Wed 11:00 - 1:30; Thu 2:00-3:30. Other times in person, phone or Zoom, by appointment at lindeman@fit.edu.

Reading Materials

We will use a variety of readings, including:

- Maltzman and D. Shirley. 2011. Green Project Management. *CRC Press*. 272 pp.
 - PRiSM (PProjects integrating Sustainable Methods) resources, for example at <https://greenprojectmanagement.org/prism-methodology>.
 - Silvius, R. et al. 2012. Sustainability in Project Management. *Gower Publishers*. 164 pp.
- Journal articles and reports by agencies and NGO are also deployed. Examples include:
- Albert, M. and Mickel, F. 2019. Sustainable Project Management, pp. 124-153 in Z. Fields and S Huesig. Responsible, Sustainable, and Globally Aware Management in the Fourth Industrial Revolution. *IGI Global*. 396 pp.
 - Armenia, S. et al. 2019. Sustainable project management: A conceptualization-oriented review and a framework proposal for future studies. *Sustainability*, 11(9); 16 pp.
 - Marcelino-Sádaba, S. et al. 2015. Using project management as a way to sustainability. From a comprehensive review to a framework definition. *Journal of Cleaner Production*, 99, pp.1-16.
 - Mavi, R.K. and Standing, C. 2018. Critical success factors (CSFs) of sustainable project management in construction: A fuzzy DEMATEL-ANP approach. *Journal of Cleaner Production*, 194:751-765.
 - Schipper, R.P.J. and Silvius, A.J. 2018. Characteristics of smart sustainable city development: implications for project management. *Smart Cities*, 1(1):75-97.

Grading

65% Project Updates and Homework Late assignments lose 25% of point value per day late.

35% Final Project Plan – Design of capstone project plan to implement in SUS 4000.

- Final relative percentages may vary slightly based on how the semester develops.

In-Class Protocol

Below applies to face-to-face, or remote learning, or hybrid mixtures.

- The reading and written assignments are reasonably short with much potential for compelling learning. Enter class ready to turn in and demonstrate knowledge of any assignment.
 - In-class participation is valuable for you and the full class. All students should measurably contribute to class discussions.
 - Good notetaking is essential to excel. What is being said matters, lecture materials not on slides will occur on tests.
 - Cell phones are not to be used in the classroom. Please turn your phone off before entering and put phones away in the classroom, students report that they focus and retain better. If there is an extraordinary need to briefly use your phone in a class, contact me before.
 - Please do not bring food into the class, plan lunch or snacks accordingly.
 - Absences can affect your course grade. Attendance on-time is expected and only fair to the others. Please consult with me, early, if there is an issue.
- Since 1990, I've taught science classes, this protocol is fair and ensures *all* get their money's worth in the limited time we have each week.

Personal Protective Equipment (PPE)

In accordance with "Florida Tech Safe: Return to Learn" procedures, instructors will enforce Florida Tech's mandatory face-covering policy in all classrooms. All students MUST wear appropriate face coverings that cover their mouths and noses during all face-to-face course meetings. Students who fail to comply with this policy WILL BE REQUIRED to leave the classroom immediately. Students who are unable to comply may contact Dean of Students Rodney Bowers for further options.

Recording of Classes and Laboratory Exercises

This course may be recorded for use by students or faculty. Enrolled students are subject to having their images and voices recorded during the classroom presentations, laboratories, remote access learning, and online course discussions. Course participants should have no expectation of privacy regarding their participation in the class. Recordings may not be reproduced, shared with those not registered in the course, or uploaded to other online environments. All recordings will be deleted at the conclusion of the academic term.

Plagiarism

- Do not do this for many reasons. Know the academic policy in your Student Handbook: <https://www.fit.edu/policies/student-handbook/standards-and-policies/academic-honesty/>. Stay free and clear of these avoidable mistakes; they are usually pretty obvious, even before using TurnItIn. These matters can or will involve the Dept. Head and the Dean of Students.

Student Learning Outcomes

- Understanding of the theory and practice of project management, including the challenges and opportunities of sustainable design and planning.
- Experience with scoping of specific alternatives and the iterative layering of sustainability best practices into project design.
- Learning to build a written capstone research project plan based on SMART principles (Specific, Measureable, Attainable, Realistic, and Time-bound).
- Learning research project components for the Northrop Grumman Showcase including professional development of the Introduction, Methods, Results, Discussion and Citations
- Experience with the building of timelines and cost-estimates for projects.

- Understanding the roles of internal and external communication in successful project development, funding and implementation.

TITLE IX

What is Title IX? Title IX of the Educational Amendments Act of 1972 is the federal law prohibiting discrimination based on gender under any education program and/or activity operated by an institution receiving and/or benefiting from federal financial assistance. Behaviors that can be considered sexual discrimination include sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct, and gender discrimination. You are encouraged to report these behaviors.

Reporting. Florida Tech can better support students in trouble if we know about what is happening. Reporting also helps us to identify patterns that might arise – for example, if more than one complainant reports having been assaulted or harassed by the same individual. Florida Tech is committed to providing a safe and positive learning experience. To report a violation of sexual misconduct or gender discrimination, please contact Fanak Baarman, Title IX Coordinator, at 321-674-8885 or fbaarman@fit.edu.

Please note that your professors, TAs, and other officers of the University are required to report any incidences to the Title IX Coordinator. *Confidential support for students is available through the Student Counseling Center at 321-674-8050.*