Applied Sustainability - ISC 4000
Syllabus – Course Outline

Time: Wed., 6:30-8:40 PM  
Classroom: Acad. Quad, Bldg 402, Rm 111
Instructor: Dr. K. Lindeman, Shepard Bldg. Rm 007  
Email: lindeman@fit.edu
Office Hours: Tue: 1400-1600, Wed: 1300-1700, Thu:1400-1630 or by appointment.
Requirements: Junior or senior level; instructor approval is required.

Course Description: This 3-credit course is a project-focused class for advanced undergraduates seeking to apply sustainability practices within their specific areas of interest. This is the capstone course for the undergraduate Major and Minor Programs in Sustainability. Students from any college are eligible - whether minoring in Sustainability or not.

Projects: Readings, lectures, and breakout groups will assist building of specific projects. The catalog description states: Requires the design, production and presentation of an individual or group project on improving the sustainable operation of some aspect of the Florida Tech main campus, Florida Tech satellite location, or another approved location. In certain circumstances, projects can be report-based: e.g., a detailed triple bottom line accounting analyses or a thorough sustainability audit of a local organization or business.

Textbook and Reference Materials: Textbook: Steffen, A. (ed.) 2011. Worldchanging: A User's Guide for the 21st Century. As a project-focused course on student-specific interests (potentially from five different colleges on campus), we use diverse readings that include technical journal articles, corporate, government, and NGO reports. Examples of above include:
- UEC. 1999. Neighborhood Sustainability Indicators Guidebook

Websites specific to sustainability projects exist for many fields and these will also assist student projects.

Selected references will be posted on the ANGEL Class website and/or made available on reserve in the Evans Library. Another useful and growing resource is the FIT Sustainability Research Guide at: http://libguides.lib.fit.edu/sustainability This resource has many pdfs and web links for important sustainability resources - collated by topic.

Student Learning Outcomes: By course completion, students should have the ability to:
- explain the conceptual history and emerging issues involving sustainability capital
- detail the applications of current sustainability principles in one’s field
- apply interdisciplinary approaches to sustainability problems outside of one’s field
- design a substantive applied sustainability project
- explain and critically review incentive categories and major certification programs
- quantify sustainability practices utilizing technical indicators
- analyze common sustainability issues from multiple perspectives
- complete final production of an applied sustainability project
- communicate sustainability information to technical and popular audiences
Grading:
30% Homework and Project Assignments
30% Midterm and Final
30% Final Project Evaluation
10% Classroom Participation & Attendance*

* Since there are only 16 class meetings, attendance is very important and will significantly impact the final grade if problematic. Contact the instructor early if there are issues involving attendance.

Class Schedule – Applied Sustainability
This schedule may adapt according to project developments during the semester

Wk 1
Sustainability Concepts/Terms; Systems and Scales; Project Development*

Wk 2
Project Development; Imbedded BMPs; Adaptive Project Management

Wk 3
Project Development; University Sustainability Initiatives: F.I.T., State, National, Global

Wk 4
Project Status; University Sustainability Initiatives: F.I.T. systems; Team breakout groups

Wk 5
Demand-Side Sustainability Incentives; Certification Processes; Team breakout groups

Wk 6
Off-Campus Sustainability: Business, Community, Government; Team breakout groups

Wk 7
Class Project Design Forum – Within Projects; Team breakout groups

Wk 8
Midterm Assessment; Project Execution; Team breakout groups

Wk 9
Spring Break

Wk 10
Class Project Design Updates and Indicator Evaluations; Team breakout groups

Wk 11
Project Design Updates; Real-world Adaptive Management; Team breakout groups

Wk 12
Communicating Sust. Advances; Merging Education & Inspiration; Team breakout groups

Wk 13
Demand-side Sustainability and Workplace Opportunities; Team breakout groups

Wk 14
Project Evals and Real-world Adaptive Management; Final Project Summaries;

Wk 15
Final Project Summaries

Wk 16
Final Project Summaries

Wk 17  Finals Week
Final assessment: