

# FYOS 1001 Engineering and a Liberal Education

## A First-Year Odyssey Seminar

*This syllabus is a general plan for the course; deviations may be necessary and will be announced to the class.*

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### **Course description:**

The objective of this course is to help you understand that engineering is a social process not just a profession that deals with technical problems. You will investigate the historical and social issues behind a real-world problem faced by the citizens of Georgia and then adapt course material to develop innovative approaches to answer that problem. Class activities and discussion will begin at collecting data and transforming that data to information, then we will move toward expanding that information to the knowledge needed for solving a complex problem. You will also attend campus events that will help you understand how the University of Georgia is answering this and other complex problems faced by the State and campus events that outline research, service, study abroad and other academic opportunities that are available to you.

### **Course Material**

There is no textbook for this course. You will be provided with documents that Dr. Foutz expects you to read and understand, prior to coming to class. You will need a journal for documenting your work, but do **NOT** purchase this journal until Dr. Foutz provides you with guidelines.

**Grading** will be based on the following categories (each worth 20 pts), Class attendance, Class participation, Project assignments, Course Journal, Event summary reports. Rubrics will be provided for each of these.

#### Class Attendance

This majority of the class meetings will be dedicated to discussing the seminar topic. Therefore, attending class is expected. Missing a class will result in a reduction of 4 points from this category. Missing 6 class meetings will result in an administrative withdrawal being issued. You will be considered absent if you miss 15 minutes of the class period. An excused absence will be given at the instructor's discretion.

#### Class Participation

Most of the classroom activities will involve discussing water resource issues faced by Georgia from 2006-2009. Each student is expected to come to class prepared for these discussions. Any point reduction due to the lack of preparedness or engagement in the discussion will be at the instructor's discretion.

#### Project Assignments

During each class meeting, each student will be given an assignment that is different from the other students. At the next class meeting, each student will report the assignment findings and the whole class will discuss how to integrate all of the reported information.

#### Course Journal

Student will need to obtain a journal notebook which will be used to record all activities associated with the course project. Guidelines for this journal will be provided in class.

#### Summary Reports

Students will be required to write summary reports about activities that relate to the research mission and the service and outreach mission of the University and to campus resources that will engage the student in "out-side the classroom" academic activities. Guidelines will be provided in class.

### **Academic Honesty UGA's Honor Code:**

***"I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others."***

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at [www.uga.edu/honesty](http://www.uga.edu/honesty). Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

### **OUT-OF-THE-CLASSROOM MEETINGS WITH THE INSTRUCTOR(S)**

Dr. Foutz will have office hours on Tuesdays at 9 am. Other meeting times can be arranged as needed. In order to develop professional skills, students are encouraged to contact the instructor by telephone or email and set a date and time for the meeting. If you make an appointment and must cancel, it is expected that you contact the instructor in a reasonable amount of time.

Other information to consider carefully

- Have assignments completed by the due date and time.
- The instructors will ask individual students questions during lecture. Be prepared to answer but remember giving a wrong answer is ok as long as you can defend your reasons for the answer.
- Be considerate to other. Be on time and do not start to “pack up” to leave early. Please do not talk during class, read newspapers, etc during class. Do not text message, answer or make calls on a cell phone during class time. Turn off all cell phones upon entering class. If there is some reason you need to have your cell phone on, turn off the sound.

**The specific objectives of this seminar course is**

- to develop your capacity
  - to think critically and analytically,
  - to convey knowledge and understanding,
  - to develop a historical and comparative perspective of problems and
  - to become an informed global citizen
- to expand your knowledge of the academic opportunities that exist within the University of Georgia Community, and
- to help you understand how you can contribute to the mission of the University.

This seminar is a component of the First-Year Odyssey Seminar program. The objectives of that program are to:

- enhance student-faculty interaction in a small class setting
- engage students in academic dialogue through writing, revision, and resubmission
- open channels of communication between students and faculty
- develop students’ skills for creative thought and effective reasoning
- promote intentional and reflective learning
- expose students to opportunities to engage in research, public service, and varied forms of instruction both on campus and globally (e.g. study abroad, practicums, internships)
- expose students to campus events that highlight the mission of the University

**Topics** (subject to change depending on classroom discussions)

- Definition of the problem
  - Social dimensions of problems
  - Operations and multiple dimensions of social units & ethics
  - Patterns of interactions of social units & problem solutions
  - Conditions and potential conditions that affect future behavior, characteristics, & functions of a problem solution
- Analysis of the problem
  - Creativity and innovation in - differences and interactions
  - Exploring various points of view and value judgment
  - Analyzing local and global patterns
  - Realizing the consequences of a solution
  - Holistic and reductionist analysis