

EGS 1006L – Introduction to the Engineering Profession

U.A. Whitaker College of Engineering





This Scholarly-Enriched Course has been designed to teach specific course content, which will include the production of scholarly work that utilizes writing, critical thinking, and information literacy.

Course Catalog Description:

The course applies the engineering approach to problem-solving and the engineering design process to evaluate current engineering innovations and situate these in a global perspective. The course is built around active, teambased learning and incorporates critical thinking, information literacy, and technical communication.

Meeting Information:

Friday: 1:30 pm - 3:10 pm - (1 credit) CRN 80572 in Holmes 147, CRN 80574 in Holmes 330

Prerequisites:

MAC1147 (Precalculus) with a minimum grade of C

Instructor Information:

Dr. Ashraf Badir, P.E.

Associate Professor, Department of Environmental and Civil Engineering

Email: <u>abadir@fgcu.edu</u>

Phone: 590-1318

Office location: Holmes Hall 312

Office Hours: M 3:30pm - 5:00pm, T/TH 2:00pm - 3:30pm or by appointment

Dr. Long Nguyen, P.E.

Associate Professor, Department of Environmental and Civil Engineering

Email: lnguyen@fgcu.edu

Phone: 590-1488

Office location: Holmes Hall 309

Office Hours: T/Th 10:30am - 12:00pm, W 8:00am - 10:00am or by appointment

Outside of class and office hours, we prefer to be contacted via email through Canvas and will make every effort to respond within 24-48 hours.

Required Course Materials:

No course text, however we will be using Kahoot! in the course, which requires bringing your laptop or phone with Kahoot! App installed to class.

Canvas and Assignments:

Canvas will act as the primary repository of documents. Prior to the beginning of class, we will put on Canvas a synopsis of the upcoming class, including reading assignments and lesson objectives. Also, any "handouts" that should be brought to class that day will be found in those folders, as will any pre-quizzes or other materials that require completion prior to the current lesson.

Assignments (both group and individual), quizzes, projects, or other documents needing to be turned in will be available with clearly listed due dates and times. Failure to complete / upload / submit your work prior to the due date / time will result in that work being counted late. Work submitted less than 72 hours late will receive no more than 50% credit. Work submitted more than 72 hours after the specified due date / time will receive zero credit.

Course Learning Objectives:

At the completion of the course, students will be able to:

- Summarize and apply the engineering design process.
- Explain the characteristics of effective team behavior and the importance of team work in an engineering environment.
- Collaborate effectively to solve problems, complete projects, and present findings and results.
- Demonstrate the global significance of specific engineering applications.
- Communicate effectively through various mediums.
- Develop appropriate strategies to locate, evaluate, and integrate relevant information.

Student Outcomes:

By the end of the semester students will have gained experience in:

- The ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- The ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- The ability to communicate effectively with a range of audiences.
- The ability to acquire and apply new knowledge as needed, using appropriate learning strategies

These outcomes relate to ABET outcomes 1, 3, 4, and 7.

Schedule:

Week #	Date	Topics	Meet by
1	24-Aug	Introduction to EGS1006L	CRN
2	31-Aug	Engineering Grand Challenges	CRN
3	7-Sep	Library Introduction	HE147
4	14-Sep	Reading Technical Articles	CRN
5	21-Sep	Guest Lecturers on Academic & Career Preparation	Seidler 114
6	28-Sep	Effective Communication	CRN
7	5-Oct	Group Office Hours / Project Workdays	By group
8	12-Oct	Group Office Hours / Project Workdays	By group
9	19-Oct	Units and Conversions	CRN
10	26-Oct	Peer Review of Drafts	CRN
11	2-Nov	Career Fair	Holmes Hall
12	9-Nov	Presentation Skills and Presenting to a Mixed Audience	CRN
13	16-Nov	TA Office Hours	By individual
14	23-Nov	Thanksgiving Observed - No class	
15	30-Nov	Alumni Panel	Seidler 114

The above schedule is tentative and subject to change. The most complete and up-to-date schedule is available through the course Canvas site.

Technology Policy:

The following policies with regards to technology are in effect for all classes:

- iPods, MP3 players, Streaming music, etc.: it is expected that students will not listen to music, etc. during class, thus ear buds should be removed at the start of class.
- Laptops, tablets, cell phones, etc.: the only acceptable in class use of these devices is restricted to activities
 <u>directly</u> related to the course. Anyone found to be using their device for reasons other than prescribed course
 activities / note taking will be asked to leave class. All devices should be silenced to eliminate noise
 distractions during class.

Technology restrictions are designed to focus student efforts on coursework and interactive discussion rather than on outside distractions.

Attendance and Participation:

Attendance **and active participation** in the course is **expected**. Many classes will include a required in-class activity. Others will include discussions or team-based activities that are not able to be duplicated on an individual basis outside of class. Lack of participation or lack of attendance will result in reduced or no credit for these activities. Attendance and participation expectations are associated not only with physical class time, but also with team meetings occurring in a physical or virtual environment. Students missing class or assignments due to emergencies or illness must submit a satisfactory medical excuse or other appropriate documentation to <u>the appropriate instructor</u> (see Canvas) via email within three days of the recorded absence. Any absence or non-participation lacking such documentation will be considered an unexcused absence. Unexcused absences affect the final course grade according to the following schedule:

1 absence No effect on grade

2 absences Final grade lowered by 2 percentage points
3 absences Final grade lowered by 5 percentage points
4 absences Final grade lowered by 10 percentage points

5 or more absences Final grade of 0 assigned (official withdrawal recommended)

Grading:

Grading in the course is based on the following percentages, with points used as weights in determining the relative importance of each topic and subtopic. To have credits for Kahoot! quizzes, you must include your full name (i.e., first and last names) or the last four digits of your university ID number in the Nickname box right after you enter the Game PIN in Kahoot!

Topic	Percent of Final Grade			
•				
Attendance	10			
Quizzes (through Canvas and Kahoot!)	15			
Individual Assignments	25			
Group Assignments	10			
Project Presentation	15			
Project Paper	25			
Total	100			

Final letter grades will be determined based on the table below.

90.00 %	-	100.00 %		<u>A</u>
80.00 %	-	89.99 %		В
70.00 %	-	79.99 %		С
60.00 %	-	69.99 %		D
0.00 %	-	59.99 %		F

Academic Integrity

The FGCU Student Code of Conduct¹ exists to define the behavioral rights and responsibilities of Florida Gulf Coast University students; to foster and enhance the academic mission of the ("University"); to protect the rights of all University students, faculty, and staff; and to protect University property. Any form of cheating or academic dishonesty will not be tolerated in this course. This includes plagiarism (defined in the Student Code of Conduct as "... whereby another's work is deliberately used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or material taken from another is plagiarizing.").

The FGCU Engineering faculty expects you to maintain the highest standards of academic honesty and integrity while in this course and as a student at Florida Gulf Coast University. In addition to standard definitions of honesty, integrity, and plagiarism; this policy also prohibits you from using previous work products created for this course by other students and allowing persons outside your team to contribute to the creation of your team's work product. If you fail to maintain these standards as a student in this class, you will be subject to the implementation of academic discipline for your offense.

Disability Accommodation Services

Florida Gulf Coast University, in accordance with the Americans with Disabilities Act and the university's guiding principles, will provide classroom and academic accommodations to students with documented disabilities. If you need to request an accommodation in this class due to a disability, or you suspect that your academic performance is affected by a disability, please see me or contact the Office of Adaptive Services. The Office of Adaptive Services is located in the Wellness Building. The phone number is 239-590-7956 or Video Phone (VP) 239-243-9453. In addition to classroom and campus accommodations, individuals with disabilities are encouraged to create their personal emergency evacuation plan and FGCU is committed to providing information on emergency notification procedures. You can find information on the emergency exits and Areas of Rescue Assistance for each building, as well as other emergency preparedness materials on the Environmental Health and Safety and University Police Department websites. If you will need assistance in the event of an emergency due to a disability, please contact Adaptive Services for available services and information.

The Center for Academic Achievement

The Center for Academic Achievement (CAA) offers various academic success programs to assist you in reaching your academic goals in a student-centered learning environment. CAA services are for all FGCU students and include **Academic Coaching**, **Tutoring**, **Supplemental Instruction (SI)**, and **Success Workshops**. We invite you to visit www.fgcu.edu/caa to make a **tutoring** and or **coaching** appointment, and get schedules for **supplemental instruction** and **workshops**. You also can stop by our office in Library 103 to pick up a schedule in person and make coaching appointments. We also have walk-in coaching sessions on Friday! Follow us @fgcu_CAA.

University Policy regarding religious holiday accommodations (Policy 4.005)

 $\frac{\text{http://www.fgcu.edu/generalcounsel/files/policies/4.005\%20Student\%20Observance\%20of\%20Religious\%20Holidays.pdf}{\text{ays.pdf}}$

Important Dates (from University Academic Calendar – subject to change):

Friday 24 Aug Last day to drop/withdraw via Gulfline deadline 5:00pm (100% refund)

Friday 14 Sept Last day to withdraw from ALL classes for 25% refund
Friday 19 Oct Last day to completely withdraw without academic penalty

Friday 30 Nov Last day of class (Friday only classes, like this one, meet this day)

¹ See http://studentservices.fgcu.edu/judicialaffairs/conduct.html

Verification of Attendance in Canvas:

As of fall 2015, all faculty members are required to use Canvas to confirm a student's attendance for each course by the end of the first week of classes. Failure to do so will result in a delay in the disbursement of your financial aid. The confirmation of attendance is required for all students, not only those receiving financial aid.

Counseling and Psychological Services:

Counseling and Psychological Services (CAPS) provides free counseling and therapy services (including psychiatry) to all FGCU students. Please walk in to the second floor Howard Hall office any week day between 8:30 and 4:30 to schedule an initial contact appointment. Visit the CAPS website at www.fgcu.edu/caps for more information. CAPS offers a 24/7 Helpline at (239) 745-3277 (EARS).