EGGG 101 Introduction to Engineering
Course Syllabus

Course Description:
Introduces students to the profession, including the disciplines of chemical, civil, computer, electrical, environmental, and mechanical engineering. Prepares students for success through the integration of the following important skills: technical problem solving and engineering design, ethical decision-making, teamwork, and communicating to diverse audiences.

Instructors:

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Class Time and Location:

Section 010, 011, 012, 013	MW 10:10AM - 11:00AM	Rooms will rotate.
Section 014, 015, 016, 017	MW 11:15AM - 12:05PM	Rooms will rotate.

Attendance:
Attendance at all classes is required, and active participation is expected.

Assignments:
All assignments are due at the beginning of class on the scheduled due date. Late work will not be accepted without prior approval.

Academic Honesty Statement:
All students must be honest and forthright in their academic studies. To falsify the results of one's research, to steal the words or ideas of another, to cheat on an assignment, or to allow or assist another to commit these acts corrupts the educational process. Students are expected to do their own work and neither give nor receive unauthorized assistance. Any violation of this standard must be reported to the Office of Judicial Affairs.

For more information about the University's academic honesty policy, see the Code of Conduct at the University's Judicial Affairs web site at http://www.udel.edu/judicialaffairs/

Grading:
The class is a Pass/Fail class. In order to pass, a student must pass each of the individual modules of the class, and have no more than 2 unexcused absences for the entire semester. A passing score is 70%.

Course Web Site:
http://www.ce.udel.edu/courses/EGGG101/index.html

EGGG 101 Introduction to Engineering
Class Schedule

Week	Monday	Wednesday
Aug. 27	Freshman Orientation Day (No classes)	Introduction Pearson Hall Auditorium
Sept. 3	Labor Day – No Class	History of Engineering Pearson Hall Auditorium
Sept. 10	Class 1, Sect. 010, 014 - CEE Class 1, Sect. 011, 015 – ChE Class 1, Sect. 012, 016 - ECE Class 1, Sect. 013, 017 - ME	Class 2 (rotation 1)
Sept. 17	Class 3 (rotation 1)	Class 4 (rotation 1)
Sept. 24	Class 5 (rotation 1)	Class 6 (rotation 1)
Oct. 1	Class 1, Sect. 010, 014 - ChE Class 1, Sect. 011, 015 – ECE Class 1, Sect. 012, 016 - ME Class 1, Sect. 013, 017 - CE	Class 2 (rotation 2)
Oct. 8	Class 3 (rotation 2)	Class 4 (rotation 2)
Oct. 15	Class 5 (rotation 2)	Class 6 (rotation 2)
Oct. 22	Class 1, Sect. 010, 014 - ECE Class 1, Sect. 011, 015 – ME Class 1, Sect. 012, 016 - CE Class 1, Sect. 013, 017 - ChE	Class 2 (rotation 3)
Oct. 29	Class 3 (rotation 3)	Class 4 (rotation 3)
Nov. 5	Class 5 (rotation 3)	Class 6 (rotation 3)
Nov. 12	Class 1, Sect. 010, 014 - ME Class 1, Sect. 011, 015 – CE Class 1, Sect. 012, 016 - ChE Class 1, Sect. 013, 017 - ECE	Class 2 (rotation 4)
Nov. 19	Class 3 (rotation 4)	Class 4 (rotation 4)
Nov. 26	Class 5 (rotation 4)	Class 6 (rotation 4)
Dec. 3	Panel Discussion of Professionals Pearson Hall Auditorium	Assessment Pearson Hall Auditorium

Classes during weeks 1, 2, and 15 will be taught as two common 10:10 AM and 11:15 AM lectures (4 sections combined) in Pearson Hall Auditorium.

All students are in one of 8 sections (010 – 017) of approximately 36 students each.

Students will be assigned to lab groups that will remain constant for the entire semester.

The rotation order will be CEE (Civil & Environmental Engineering) – ChE (Chemical Engineering) – ECE (Electrical & Computer Engineering) – ME (Mechanical Engineering) - (and from ME rotate back to CEE).

Classrooms: 10:10 and 11:15 AM CEE Sections meet in 140 DuPont Hall
10:10 and 11:15 AM ChE Sections meet in 366 Colburn Laboratory
10:10 AM ECE Sections meet in 120 Sharp Laboratory
11:15 AM ECE Sections meet in 109 Sharp Laboratory
10:10 and 11:15 AM ME Sections meet in 350 DuPont Hall

EGGG 101 Introduction to Engineering
Course Objectives

EGGG 101 is a first year course designed to help first semester engineering students decide which major within the college is best for them, and prepare them for success at UD and beyond by teaching them important skills including: technical problem solving and engineering design, ethical decision-making, teamwork, and communicating to diverse audiences.

Course Outcomes

1. Students will become familiar with the University of Delaware, the College of Engineering and the various departments within the college, and various student resources on campus. This will be done by having a variety of instructors from various departments, and from assignments that will cause the students to utilize a variety of university resources.

2. Students will become aware that they are part of a community of learners with whom they can share ideas and common interests. All of the students in the class will be freshmen engineering students. They will engage in problem based learning in the class, as well as be asked to work on group assignments. All freshmen will have the chance to be paired with upper-level engineering students who will serve as their mentors.

3. Students will recognize the importance of oral, written, and general academic skills, including teamwork where appropriate. Through group projects, students will build teamwork skills. They will be asked to report on results both in writing and orally.

4. Students will know accepted standards of academic ethics and can list important academic values. At the outset of the class, we will spend time talking about academic honesty and UD's Code of Conduct.

5. Students will understand college-level expectations about their academic performance and their personal conduct. This will be accomplished by clearly defining expectations of student behavior both inside and outside of class, as well as clearly defined standards for course assignments.

6. Students will become comfortable discussing important academic topics with faculty. The course will be very interactive, and all lectures will involve significant opportunities for discussion.

7. Students will gain an awareness of the connections between engineering and the wider world. Lectures on the history and future of engineering will tie the relevance of engineering to global societal issues.

Sample Lab Report - Biomechanics

1. Introduction

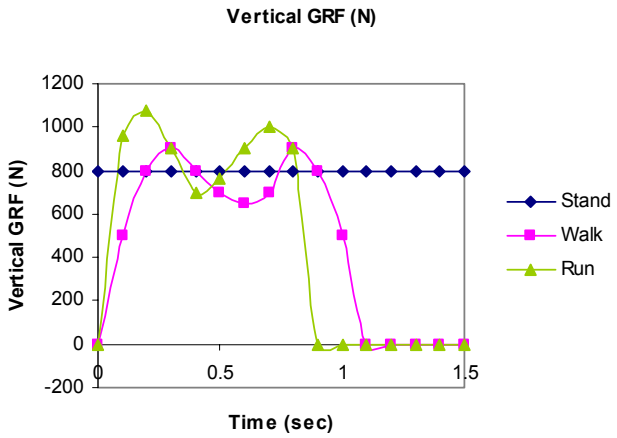
State the objective(s) of this laboratory experience.

2. Methods

Clearly and succinctly describe how the objectives were achieved. What sample was used? What conditions were presented? What tools were used? What measurements were taken? What equations were applied?

3. Results

1. In a single figure, plot the vertical ground reaction force as a function of time for each condition: standing, self-selected speed walking, running. Be sure the different line types can be discerned when printed in black and white. Include an informative caption labeled **Figure 1**.



2. Using the equations provided in class, calculate the joint torque at the ankle as a function of time. Determine the peak torque for each condition and report this information in a single table. Include an informative caption labeled **Table 1**.

Condition	Peak Force (N)	Peak Torque (Nm)
Stand		
Walk		
Run		

4. Conclusions

1. How does peak isometric torque compare to peak torque measured during the activities of daily living tested with biomechanical gait analysis on the instrumented treadmill?

2. What provides this ankle torque in an able-bodied runner?

5. References

1. Cite any references used with full bibliography.

2. List team members.