

MAE 435 - Project Design and Management II Summer 2013

Title	Project design and management II
Name	Dr. Stacie Ringleb
Office Location	Kaufman 238C
Office Hours	by appointment
Email Address(es)	SRingleb@odu.edu
Telephone Number(s)	757-683-5934
Web site	www.odu.edu/~sringleb

Contact Policy

I have an open door policy, so please stop in whenever my door is open. When emailing me, please carbon copy the TA.

Teaching Assistant Contact Information

Name	Michael Samaan
Office Location	KH 115 desk
Email Address	msama003@odu.edu

Student Help Resources

Blackboard Support Website

<http://www.clt.odu.edu/bb>

Technical Support Center

<http://occs.odu.edu/>, occs-help@odu.edu, 757-683-3192

Course Description

Course Number	MAE 435
Pre- or Co-requisites	MAE 434W
Lecture Hours	4-5:30
Location	Oceanography 100
Credits	3
Official Description	Conceptual design ideas are expanded into detailed design ideas. Product realization is applied to complete hardware. Course covers Gantt charts, preliminary design, evaluation and trading matrices, detailed design and analysis, oral and technical reporting including cost analysis. Ethics and patent issues are also included.

Course Objectives

1. to design a system, or process to meet desired needs
2. to function on a multi-disciplinary team
3. to identify, formulate, and solve engineering problems
4. to communicate effectively
5. to use techniques, skills, and modern engineering tools necessary for engineering practices
6. to apply the knowledge of math to engineering design and analysis problems
7. to write computer programs, or to use already developed software in design and analysis of engineering problems

Writing Expectations

As an engineer 25-80% of your job will be spent writing (including emails, memos, final reports, etc.). In addition to your technical capabilities, your ability to write may influence your ability to advance in your career. The final report you generate in MAE 435 is something you should be able to take to a future employer to show that you are not only capable of completing a team engineering project with technical challenges, but also are capable of generating a well written final report. This will show a future employer how well you will be able to communicate with customers and will also help them to understand your ability to think analytically about the results you obtain in this project.

Instructional Approach

Because the main objective of this project is for your team to complete a senior design project, the major focus of this class is on ensuring that you are on task with completion of the project. Additionally, time will be taken to discuss design approach, writing and data analysis. While this is a group project, each person is expected to have individual tasks that they are responsible for. The progress on these tasks will be reported on weekly.

Instructional Approach

CLASS ATTENDANCE

Class meetings will begin on the scheduled class date. The instructor and/or teaching assistant (TA) will be available to pass on information relative to the class as a whole. You should check your ODU email daily, as important information is emailed through blackboard. Both the advisors and teaching assistants will be available for consultations on projects, as required. For proper communication within groups to occur, it is imperative that attendance requirements are met and minutes are taken at all meetings.

University Writing Requirement

The mechanical engineering curriculum went through a change this year, as well as the writing requirement for graduation. If you took MAE 434 in the spring or summer of 2012 (not MAE 434W in the fall 2012) you have to take the writing exit exam in order to fulfill your graduation requirements. If you need to take the exit exam, register here: <http://uc.odu.edu/academicskills/facts/exitexam.shtml>. Also, if you received a C- or below in MAE 434W, you have not fulfilled the university writing requirement, and you should see your academic advisor to discuss your options.

GRADING Criteria

2% of total grade will be deducted for each missing class. A class is considered "missing" if there was no strong evidence for extraordinary reason to not attend. Medical reasons with proper documents or my pre-approval will not penalize your attendance. An incomplete grade will be given if a student has more than 5 absences.

Grading is based on both individual and group contributions to the course. Your group and individual grade will both be influenced by your faculty advisor.

Individually, you will be graded on: 1) attendance, 2) weekly status updates posted on blackboard (by Monday at noon), 3) two cover letters and 4) a reflection on what you learned during the course of the semester.

Your group grade will be based on: 1) communication file (web page, minutes, Gantt chart and status reports), 2) midterm and final presentations, 3) midterm and final reports and your project achievement.

Individual Grade

Weekly status updates and cover letters	5%
End of semester reflection and individual contribution*	15%

* individual contribution is determined by input from faculty advisor, CATME assessments and your personal reflection

Group Status Reports, Web Page, Communication File	10%
Oral Communication	
Midterm Presentation	10%
Final Presentation	10%
Written Communication	
Midterm Report	10%
Final Report	10%
Project Achievements	
Group achievement	20%
Input from faculty advisor	10%

All assignments will be uploaded into Blackboard. Group requirements will be both posted in blackboard (by one group member) and posted to the project web site.

Individual Requirements

WEEKLY PROGRESS REPORTS

Every week by Monday at noon, regardless of class meeting, each member of the class must enter their weekly efforts on the project in blackboard (even if the efforts are minimal).

COVER LETTERS

You will write two cover letters that can accompany your resume. The cover letters must contain a description of your project as well as your contribution to this project, as well as a summary of any other relevant experience. The first cover letter is due at the beginning of the semester and the second cover letter, which is an updated version of the first, is due at the end of the semester.

CATME EVALUATIONS

CATME.org will be used three times during the semester to assess your group members. The first two assessments will be used to monitor individual contributions and team dynamics. The results from the third assessment will be used to help calculate your individual contribution grade.

Group Requirements for Projects

GROUP PROJECT PROPOSAL

A one page project proposal (i.e., summary of the objectives of your project and plan for accomplishing them), along with a Gantt chart with tasks and milestones is due the second week of class.

GROUP STATUS REPORTS

Status reports are formed of two parts: written and oral. These reports are due from each group according to the class schedule. It is the manager's responsibility to collect and summarize the work that each member has done during the previous weeks. For example, the manager may require that each of the project members submit a half page written summary of the status of his or her work. The project manager, or whoever is delegated to do so, summarizes these papers into one typed status report, accompanied with an updated Gantt chart. The oral report is typically about 5 minutes and involves at least one member from each group to present to the class using a PowerPoint format.

MANAGEMENT AND ORGANIZATION

The organization of this class is as follows: Dr. Ringleb is the primary instructors for the group projects assisted by a TA who is the principle facilitator between the faculty advisors and the design teams. The instructor's job is to organize the projects and evaluate the performance of the groups. A faculty advisor heads each design group. The faculty advisor acts as the technical monitor guiding the group members. **10% of your grade will be based on the evaluation of your faculty advisor.** Each group will have a student manager who is the main organizer and leader of the project. The student manager is to be selected by the course instructor after consultation with the group members.

PROJECT MANAGER RESPONSIBILITIES

Each project manager is required to conduct weekly status meetings with his or her group, as well as regular meetings with the project's faculty advisor. Each group must submit an organizational chart and a milestone chart for the project. The organizational chart must state who the project manager is and each member's duties. These elements are due no later than the second week of the semester. The project manager will be required to delegate duties to the rest of the project members. For instance, each final report will include an introduction to the project design goals. Someone will have to write the introduction even though they worked in a completely different area during the semester. The project manager must make these assignments. The manager must also determine the format of the project's mid-term presentation. Project managers will be the communications link between the instructor, the TA, and the rest of the group. This is in reference to technical matters only. Finally, the project managers will become the prime motivators for the group.

MID-TERM PRESENTATIONS

Each team will be given approximately 10-15 minutes to present an oral status review of their respective projects. The exact details of the presentation will be left up to the project managers. At the time of the oral presentation, each group will be required to submit a written report of the status of their projects. The written and oral reports are expected to be given the same effort and professionalism as would be given on the job. Class attendance is mandatory for all students of ALL presentation days.

FINAL PRESENTATIONS

Each project will be given approximately 15-20 minutes to present their group work, note that every student must participate, giving a presentation detailing some aspect of the work that has been accomplished during the semester. Grades are given to the group as a whole; thus it is important that everyone is well prepared for their part of their group's presentation. The presentation dates and times will be announced later; however, attendance on all days will be mandatory.

DEMONSTRATION MODEL

All projects must submit design drawings (computerized as much as possible) and a demonstration model of their project if applicable. The model can range from actual hardware through scale models made of balsa wood, Styrofoam or cardboard. Demonstration devices are key elements of a successful design.

COMMUNICATIONS REPORTING AND WEB SITE

Each project will maintain a communication file. This file contains messages to other groups, the instructor, and any other technical contacts such as AMF Bowling engineers. In addition, minutes taken during meetings are stored in this file. Log all phone conversations and computer communications that are related. All memos will be kept in this file as well. This file will be interactively posted on your group's web site. Your team will also maintain a Gantt chart, which will be updated weekly on your web site.

MINUTES

Minutes are to be recorded by each group during the occurrence of any meetings. These minutes include attendees, time and date of meeting, and major item discussed. Weekly minutes should be posted on your web site weekly to receive full credit for this portion of your communication file.

INTERGRATION

It is highly encouraged that team members in this class include students from other ranks such as freshmen, sophomores, and juniors.

Course Disclaimer

Every attempt is made to provide a syllabus that is complete and that provides an accurate overview of the course. However, circumstances and events may make it necessary for the instructor to modify the syllabus during the semester. This may depend, in part, on the progress, needs, and experiences of the students.

University Policies

College Classroom Conduct

The following standards are intended to define acceptable classroom behavior that preserves academic integrity and ensures that students have optimum environmental conditions for effective learning.

1. Students must turn off cell phones and pagers during class or have them set to vibrate mode.
2. Classes are expected to begin on time, and students will respect the time boundaries established by the professor. If classroom doors are locked, students may not knock or seek entrance in other ways.
3. Students should notify instructors in advance when a class will be missed. In the event of an emergency that causes a class to be missed, instructors must be notified as soon as possible.
4. Instructors may require that cell phones and other electronic devices be left on their desks during tests or examinations.
5. Students must not engage in extraneous conversations during classes. Such acts are considered to be violations of the Code of Student Conduct.
6. Students will activate their Old Dominion email accounts and check them before each class. If the student chooses to have his/her messages forwarded to another account, it is the student's responsibility to take the necessary steps to have them forwarded.
7. Consumption of food and drink during class is prohibited, except when the professor has specifically approved of such acts.
8. Offensive language, gestures and the like are disrespectful and disruptive to the teaching-learning process. [http://studentservices.odu.edu/osja/ccc_pamphlet.pdf]

Honor Pledge

"I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned." By attending Old Dominion University you have accepted the responsibility to abide by this code. This is an institutional policy approved by the Board of Visitors. For more information please visit Honor Council]

Withdrawal

A syllabus constitutes an agreement between the student and the course instructor about course requirements. Participation in this course indicates your acceptance of its teaching focus, requirements, and policies. Please review the syllabus and the course requirements as soon as possible. If you believe that the nature of this course does not meet your interests, needs or expectations, if you are not prepared for the amount of work involved - or if you anticipate that the class meetings, assignment deadlines or abiding by the course policies will constitute an unacceptable hardship for you - you should drop the class by the drop/add deadline, which is located in the ODU Schedule of Classes. For more information, please visit the Office of the University Registrar.