

Syllabus

ME 4910

ENGINEERING DESIGN Fall 2015

Supplies: One Bound Project Record Book

Reference: Engineering Design, G.E. Dieter, McGraw-Hill

Grading:

Team-base

Proposal	15
Final presentation	10
Peer evaluation	5

Individual-base

Quizzes/Attendance/Class works	10
Notebook (record-keeping)	10
Project advisor's feedback	50

Total 100

Instructor: Dr. Rory Roberts

Phone: (937) 775-4856

Email: Rory.Roberts@Wright.edu

Office: 106 Russ Center Office Hours: TTh 9:20 AM-11:00 AM Other times by appointment

Classroom: 146 Russ

Time:

Tuesday, Thursday 8:00-9:20 AM

Attendance Policy:

Attendance is mandatory. All students are expected to be on time and present during the entire class and participate in the discussions. Quizzes will be unannounced and there will be no make-up quizzes. Tardiness will be mark as '0' for attendance. A student's final grade will be reduced by 10% if absent for five class sessions. The student's final grade will be reduced an additional 10% for every three additional class sessions absent beyond the initial five absentees.

ME 4910 Capstone Tentative Class Schedule

See Schedule on Pilot

Disability Services: If a student has a disability that will require special accommodations, it is essential that he or she discuss it with the instructor and/or The Center for Independent Achievement (CIA) before or during the first week of the semester. The CIA will work with these students on an individual basis to determine what services, equipment, and accommodations would be appropriate regarding their documented needs. Students who may qualify for these types of service should initiate contact with the instructor and/or the CIA as soon as possible to enable the university to meet their needs. Please call (937) 775-5680, TTY: (937) 775-5844, or email disability_services@wright.edu or visit the CIA for more information.

ME 4910 Engineering Design

General Information

This is a two course sequence, ME 4910 or ME 4920. It is structured around a design project. The project should be scheduled for the entire two semester period.

The purpose of this is a course to provide an experience in the methodology and the process of design appropriate to the discipline (ME or MSE). It is an opportunity to utilize skills developed in previous courses in a work-like situation. In the lectures we will discuss project planning and reporting, data analysis, engineering economics, group dynamics and professional ethics. The course will also be an introduction to professionalism.

The course will include weekly lecture, discussion, or project reporting sessions. There will be a **strong emphasis on the communication** of project plans and results. The students will be required to make oral presentations of their project proposals, project progress, and project results. This is a writing intensive (WI) course and several reports and other writing oriented tasks will be assigned during the course. All reports must be prepared using word processing and graphics software packages. Oral presentations must be prepared on appropriate presentation software, such as MS PowerPoint.

Projects may involve the design of a product, a component or a system, a manufacturing or materials process, a new or improved engineering material, or documented software. Some of the projects may be in connection with a competition. The decision to actually construct a product or a demonstration model will vary from project to project depending on the scale and available resources. All projects will be conducted by teams of 3 to 4 students. Each team member is expected to have **documented** responsibilities.

Each project must have a university faculty advisor, primarily from the MME Department. Advisors from other departments will be considered on a case-by-case basis. Some projects may need to be conducted off-campus. In such situations, there must be an advisor at the work location, and an on-campus faculty advisor who will consult with the off-campus advisor.

You are required to maintain a personal, bound laboratory notebook. This notebook should contain all your plans, experiments, data, analyses, thoughts, conclusions, etc. These notebooks are available in the bookstore. Each notebook is to be examined and signed by the faculty advisor at least once every three weeks.

For purposes of grading, each semester of this two-semester sequence is a separate entity, and the grades for the two semesters may be different. The grade for the first semester for ME 4910 will be based on several written submissions and two talks. The grade for each semester will be determined in consultation with your faculty advisor at the end of each semester.