

**ENGR 411 – ME 488**  
**Spring 2008**

**Coordinator:** Carlos Pomalaza-Ráez  
**Office:** ET 327 H  
**Office Hours:** Thursdays 6:15 – 7:15, Mondays 3:30 – 5:30  
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**Textbook:** None

**Supplementary readings:** Additional readings will be distributed through the instructor's website, and/or in class. Students are expected to become familiar with all required reading.

**Attendance policy:** Attendance to the lectures is **mandatory**. Missing more than one meeting without a valid excuse will result in a failing grade for the portion of the grade that the coordinator assigns. For the definition of valid excuses, please refer to the IPFW Bulletin or to the IPFW Student Handbook. Students are expected to participate in each class session, complete all required work, and be thoughtful and attentive.

**Late Work:** Late work will not be accepted

**Tardiness:** Late arrival to the classroom disturbs everyone thus it *will not be tolerated*. If you arrive late *do not come into the classroom*. You will be charged with an absence. If you are going to be unavoidably delayed then notify the instructor, *before* the lecture, via phone or e-mail that you will be unable to be on time and join the class quietly and with minimal disturbance.

**Grading:** The grading policy can be found in the course guidelines

**Course Guidelines:** [http://www.engr.ipfw.edu/capstone/SD\\_guidelines.pdf](http://www.engr.ipfw.edu/capstone/SD_guidelines.pdf)

*From those guidelines:*

- Teams should complete their projects by implementing what they have designed in the first semester, that is, *building, testing, evaluation, and demonstration* of the end products. Deadlines for these milestones are set through discussion between the advisor and the project team
- A schedule of the semester's tasks should be submitted by the advisor to the coordinator by the end of the second week of the semester.
- By the date indicated on the semester schedule, each team is required to submit to the coordinator a "*Measured Parameters Statement*" to identify various parameters that need to be determined as well as the method of measurement
- Near the end of the semester, each team is required to submit each copy of a final design report to the team advisor(s) and senior design coordinator and hold a System Verification Review (SVR). The submission dates for the final design report and SVR are set by the coordinator
- Complete a formal System Verification Review (SVR) at the end of the semester where the students present the results of their semester work to faculty and sponsors that demonstrate that their prototype meets the needs of the problem statement and satisfies the requirements

The class meets at 7:30 pm on Thursdays in ET 107. The topics and schedule of the lectures can be found in the course website. The Supplementary Instruction (SI) period on Wednesdays from 11:00 to 11:50 is reserved for meetings with the faculty advisors and/or a team meeting. The time and place for the SI meetings can be changed upon agreement by all parties involved.

The faculty advisors have been asked to setup a time table with each team. The following time table is just a suggestion with the exception of the final report due date which is fixed.

<b>Date</b>	<b>Milestone</b>
1-24	Each team submits a written statement that illustrates in details all the parameters/quantities that are to be measured or determined/obtained during the testing process in order to successfully verify the operation of their prototype and validate their original base design.
3-15	A working prototype is to be built and completed by this date. Each group must arrange for a live demonstration of the built prototype for their advisor within a week of this date. Start testing the prototype.
4-9	Testing and evaluation of the prototype is to be completed by this date. Also by this date, each group must submit the data/results of their tests, discussion/evaluation, and a detailed procedure they used in their testing. Each group must arrange for the advisor to test their prototype within a week of this date.
4-14	First draft of the Final Report.
4-21	<b>Final Report due</b>

The oral presentations are scheduled to be on *April 29 and May 1 from 7:30 pm to 9:20 pm in SB 168.*

*For the design team that will not be able to show a live demonstration of their built design during the oral presentation, they are required to video tape their testing process and show it during the oral presentation.*

<b>Course Outcomes</b>	<b>Corresponding ABET Outcomes</b>						
	(c)	(d)	(f)	(g)	(h)	(i)	(j)
The ability to identify the various parameters that need to be determined in order to evaluate the prototype with the basic design that was obtained in the first semester	X						
The ability to build, test and evaluate the basic design completed in the first semester	X						
The ability to function within a multidisciplinary team		X					
The ability to present his/her work both written and orally				X			
Knowledge of contemporary issues							X
Understanding of the ethical issues that are associated with the engineering profession			X				
Understanding of the societal impact of engineering					X		
Recognition of the need for life-long learning						X	