Course Information

Instructor:

Carlotta Berry (berry123)

Moench Hall, D-202

877-8657

Course Description:

ECE 160 Engineering Practice 0R-4L-2C F, W Pre: none

The principles of system engineering design and teamwork are used by student teams as they design, test, and build an autonomous robot to meet a set of performance specifications. An end-of-term competition for testing the robots' performance to meet the design specifications and for honor and glory features exciting matchups between teams. Students and instructors are encouraged to have fun throughout the course!

Prerequisites: None

Course Text: No text but lecture slides are available on Angel

References: Smith, K.A., Imbrie, P.K., *Teamwork and Project Management, 3rd Edition,* McGraw-Hill, 2007.

Ford, R.M., and Coulston, C.S., *Design for Electrical and Computer Engineering,* McGraw-Hill, 2005.

Eide, A.R., Jenison, R.D., Mashaw, L.H., and Northup, L.L., *Engineering Fundamentals & Problem Solving,* McGraw-Hill, 2002.

Expectations for You:

First and foremost, professional work is the standard in this course. All of your written work and your conduct in class are to be at the level of one who is studying a profession such as engineering. This means a number of things:

1. Your work is neatly done in a professional manner, using formats specified.
2. Your work is honestly done. You are encouraged to discuss course material with classmates to help each other understand and assimilate the concepts. Nevertheless, distinguish between helping someone understand concepts and providing them with specific answers. You are expected to work individually on individual assignments and to be a significant contributor on team assignments.
3. Your work is submitted on time. As a rule of thumb, expect to put in **four hours** hours per week outside of class doing assignments and meeting with your team.
4. You are attentive and engaged in the lecture (i.e. not sleeping, reading the newspaper, surfing the web, doing homework for other courses, disturbing others with electronics).

Grading:

Your final grade will be comprised of two components: individual performance on homework assignments and team performance on the project assignments. Grades will be assigned at the end of the quarter based on the grade weights and grading scale shown below:

Individual Assignments	30%	A	90 – 100
Team Assignments	60%	B+	85 – 89
Participation	10%	B	80 - 84
TOTAL	**100%**	C+	75 - 79
		C	70 - 74
		D+	65 - 69
		D	60 - 64
		F	Below 60

Participation:

Classroom participation actually counts toward your grade in this class. Not participating in classroom activities or excessive absences will have a measurable detrimental effect on your grade. You are expected to be attentive and engaged in the lecture (i.e. not sleeping, reading the newspaper, surfing the web, doing homework for other courses, disturbing others with electronics). As a rule of thumb, you should expect to put in **four hours** per week outside of class completing assignments and meeting with your team.

Assignments:

Late assignments will not be accepted without prior approval from the instructor. The final competition will be Thursday evening of week 9, attendance is mandatory. The final project report and demonstration will be due during the last week of class. The final project demonstration typically involves a team exhibition and class competition in the student union. The final report must follow the same format as the laboratory reports. **No incomplete will be given on the final project.**

Final Project:

There are no exams in this course by design because it is expected that the final project will require a significant time commitment. The Lego Mindstorm final project will be due during the week 9 competition. The final project report and presentation will be due during week 10. **No incomplete will be given on the final project.**

*Attendance is **mandatory** at the final competition on **Thursday, November 1, 2012, 5:30 - 7:30 p.m.**, Kahn Room, Hulman Memorial Union.*

Course Policies:

- Students are encouraged to check their RHIT email and Angel account daily for information regarding the class. You are responsible for all information sent to you or uploaded by the professor, whether read or not.
- All students are expected to join in class discussion and all activities with a positive attitude. All students are expected to exhibit an attitude that is appropriate to one studying a profession and such that everyone has an engaging, fulfilling and successful experience. Please leave the classroom neater than you found it. All students are required to return the Lego Mindstorm kit to the parts room at the end of the course with all of the parts intact. If the kit is not returned after the last day of class then the entire team will receive an incomplete in the course until it is returned. If the kit is not returned, then the entire team will be required to purchase a new kit at the replacement cost or earn a failing grade in the course.
- Operating your computer in class for anything other than an approved course activity is not permitted. Students must not hinder the learning environment of their fellow classmates with any other distracting behavior such as talking, sleeping or reading the newspaper. Continued disruptive conduct will lead to the student being asked to leave class and marked absent for that class period. The student will remain responsible for all class assignments.

Attendance:

- Regardless of whether formal attendance is recorded, attendance at each class is expected. Experience has shown that regular attendance and engagement improves learning and consequently improves quiz and assignment performance. According to the Academic Rules and Procedures, "A student whose total absences in a course, excused or unexcused, exceed two per credit is liable to fail the course." For the purposes of this class, that limit will be set at **no more than 4 absences per quarter**.
- If you must be absent from class for any reason including a job interview or illness, you must let the instructor know as far in advance as possible.
- Students are responsible for all information presented in class whether present or not.

*Attendance is **mandatory** at the final competition on **Thursday, November 1, 2012, 5:30 - 7:30 p.m.**, Kahn Room, Hulman Memorial Union.*

Honor Policy:

Rose-Hulman Institute of Technology does not tolerate plagiarism or cheating in any form. The penalties for these and other forms of academic misconduct range from a lowered course grade, through failure in the course, up to and including suspension from the Institute.