Course Title: Statics  
Date: August 27, 2012  
Credit: 3 Semester Hours  
Prerequisites: Undergraduate level PHYS 2110 Minimum Grade of D and Undergraduate level PHYS 2111 Minimum Grade of D and Undergraduate level MATH 1920 Minimum Grade of D  
Course Meetings: Lecture: MWF; 8:00 to 8:55 PM; ET233  
Instructor: Dr. Paul Palazolo; Office EN 108A; ppalazol@memphis.edu  
Office Hours: “Open Door” or by appointment  
ResponseCard NXT, Turning Technologies  
CourseWeb: www.ce.memphis.edu/2131

COURSE DESCRIPTION  
Analysis of two and three dimensional force systems; centroids and moments of inertia; friction.

COURSE OBJECTIVES  
1. To develop fundamental skills in the solution of engineering problems through the solution of statically determinant mechanical systems  
2. To develop the ability to solve statically determinant systems for missing forces and/or moments  
3. To develop the ability to calculate the position of the centroid and moment of inertia of a shape  
4. To develop the ability to integrate frictional forces into a statically determinant system and solve the system with these forces included

COURSE TOPICS  
1. Vector and scalar representation of forces  
2. Particle equilibrium  
3. Force systems  
4. Rigid body equilibrium  
5. Systems analysis
6. Centroids and Center of Gravity
7. Moments of Inertia
8. Friction

GRADING POLICY

The grade in the course is based on an overall summation of points from homework, class participation and response, regular tests, and a final exam. There are regular tests about every four weeks of the class and they are designed to fall approximately on topic boundaries. Short quizzes may be given at any time. Short quizzes have the same value as individual homework assignments. Class participation and responses are evaluated using the Turning Technologies Response Card NXT. Students are responsible for having a working NXT in class during every class period.

The final grade for the class will be based on the following:

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<thead>
<tr>
<th>Grade</th>
<th>Class Average</th>
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<tbody>
<tr>
<td>A</td>
<td>&gt;=90</td>
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<tr>
<td>A-</td>
<td>&gt;=87</td>
</tr>
<tr>
<td>B+</td>
<td>&gt;=83</td>
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<tr>
<td>B</td>
<td>&gt;=80</td>
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<tr>
<td>B-</td>
<td>&gt;=77</td>
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<tr>
<td>C+</td>
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<td>&gt;=67</td>
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<tr>
<td>D</td>
<td>&gt;=63</td>
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<td>F</td>
<td>&lt;63</td>
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All tests and the final exam will be comprehensive.

The final exam is multiple choice and has no partial credit. Regular tests are problems and have partial credit evaluations.

Homework is evaluated based on accuracy, presentation, format, and perceived level of effort. Copying the homework solution manual will receive minimal credit. Submitted work should be your own. Even if you work together, please work out the problems on your own.

Class responses are evaluated on accuracy. Typically two points are given for a correct response, one point for an incorrect response, and no points for no response. Responses are expected to be your own.

HOMEWORK
Homework problems will be assigned almost every class. AT THE BEGINNING of each class, students will be selected at random to submit the assignment from the previous class. Absent or tardy students will automatically receive a 0 on that assignment if their name is called for submission. You may not submit a homework problem if you arrive late. Every student will be called on to submit about the same number of assignments over the semester.

ABSENCES

If a student is absent from the class and he or she misses a homework, quiz, or test; and he or she wishes to make up that work, he or she must submit a written reason for the absence and provide supporting documentation. The submission will be evaluated by the instructor and may or may not be accepted. The final judgment will be up to the instructor. If the written submission is accepted, the work will be accepted late or a make-up test will be given. Human frailty is not an excusable absence.

Academic Integrity and Student Conduct

As Engineers, you will be expected to hold to a high standard of conduct in all your professional work. As such, you will also be held to that standard in this class. All work submitted in the class should be your own work. You may ask your fellow students to explain things to you, but you must do the work on your own. If you choose to submit work done by another student, I will not hesitate to give you a failing grade for the entire class. That is how important I believe the development of a standard of conduct is. It is very easy to try and circumvent honesty policies. The price for making that attempt is also very steep. I know how much time it requires to do all the work in this class but that is never an excuse for dishonesty. Please take this seriously.

Expectations for academic integrity and student conduct are described in detail on the website of the Office of Student Judicial and Ethical Affairs (http://saweb.memphis.edu/judicialaffairs). Please take a look, in particular, at the sections about "Academic Dishonesty," "Student Code of Conduct and Responsibilities," and "Disruptive Behaviors." I will expect students to be aware of these guidelines and to conduct themselves accordingly.