SYLLABUS
Physics 370, Engineering Design
Fall Term 2010

INSTRUCTOR:    Dr. Joshua Dyer
OFFICE: 207 Hanson Hall of Science
E-MAIL:    JoshuaDyer@augustana.edu
PHONE: (309) 794-3477

OFFICE HOURS: Tuesdays 10:30 am-11:30 am, 1:30 pm-2:30 pm, Wednesdays 2:30 pm-3:30 pm, and Thursdays 10:30 am-11:30 am, or by appointment.

CLASS MEETINGS:  MWF 11:30am – 12:45pm in 203 and 116 Hanson Hall of Science

PREREQUISITE:   PHYS-201, PHYS-202, and PHYS-203

COURSE DESCRIPTION: The fundamentals of engineering design, including teamwork, model and prototype building, and drafting are covered to gain familiarity with engineering design graphics. In-class, hands-on work with computer-aided design (CAD) is used to provide exposure to modeling software and the product design process.

MATERIALS:
- COMPUTER SOFTWARE: The class requires use of AutoDesk Inventor 2011 both in class and for outside assignments. The software is installed on the computers in 116 HHS. This room will be open and available during the daytime. You can also install the software on your personal computer and obtain assistance via http://students.autodesk.com

EVALUATION: Your grade in this course will be determined by the points that you earn on:
- The lab assignments will be worth 20 points each and quizzes will be 10 points each for a total of 200 points.
- The Design Project and its components will be worth 300 points total.
- Each of the two written tests is worth 150 points.
- Each of the two modeling tests is worth 100 points.
- No final exam will be given in this course. An oral presentation of the Design Project will be required in lieu of a final. The Design Project is required for the course. Failure to complete the Design Project will result in the grade of “F” for the course. The grading scale will be no worse than what is shown below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100%</td>
</tr>
<tr>
<td>A-</td>
<td>87 – 89%</td>
</tr>
<tr>
<td>B+</td>
<td>83 – 86%</td>
</tr>
<tr>
<td>B</td>
<td>80 – 82%</td>
</tr>
<tr>
<td>B-</td>
<td>77 – 79%</td>
</tr>
<tr>
<td>C+</td>
<td>73 – 76%</td>
</tr>
<tr>
<td>C</td>
<td>70 – 72%</td>
</tr>
<tr>
<td>C-</td>
<td>67 – 69%</td>
</tr>
<tr>
<td>D</td>
<td>60 – 66%</td>
</tr>
<tr>
<td>F</td>
<td>Under 60%</td>
</tr>
</tbody>
</table>

IMPORTANT DATES FOR THE SEMESTER:

August 23 Classes Begin    September 24 Last day to drop without a “W”
August 31  Add Period Ends  October 8  Drop Deadline
September 6  Labor Day – No Class  October 25  Written Exam 2
September 17  Pass/No Credit deadline  October 29  Modeling Exam 2
September 17  Modeling Exam 1  November 2  Oral Presentations – 9am-11am
September 20  Written Exam 1

**ELECTRONIC MESSAGES:**
- The instructor may send e-mails with information vital to your success in the course. Check your e-mail often, at least once a day.
- The instructor will send e-mails to the entire class as a group. Do NOT reply to these emails as they will send your message to the entire class. Instead, start a new message and type in the instructor’s email address.
- Any e-mail messages are returned during the regular workweek and there may be some delay in the instructor's response to an individual's e-mail. Do not send time-sensitive information via e-mail, speak to the instructor in person.

**EXCUSED ABSCENCES:** The only way to be excused from not completing assignments is an excuse related to an Augustana College function or illness. The student is responsible for providing satisfactory evidence to the instructor to substantiate the reason for absence.

**EXAMS:** Because of the concentrated nature of the tests, and the logistical difficulties of make-up exams, students will NOT be allowed to make-up tests unless they have contacted the instructor PRIOR to the exam in question with a legitimate, verifiable reason. In such a case, the student will be allowed to make up the exam before the next meeting of the class after the test. The student is responsible for contacting the instructor to make arrangements for the make-up exam, and must bring documentation of the reason for the missed test. An unexcused absence will result in a zero for that test. Please note that it is in your best interest to take tests as they are scheduled, as students almost invariably score more poorly on make-up exams.

**ASSIGMENTS:** All assignments are due in class on the stated date. Computer problems are not an excuse for not completing an assignment, please do the assignment in advance of the due date to allow time for any potential problems. Assignments may be turned in early, but no late assignments will be accepted.

**DISTRACTIONS:** Disruptive behavior of any type that hampers the ability of instructors to teach or students to learn can expect a warning from the instructor or dismissal for the lesson in which the behavior occurs. This class will require the use of computers, the only program that should be open is Autodesk Inventor. Do not use the internet or any other programs during class. The use of pagers, radios, ipods, cellular phones, and other electronic devices in class is PROHIBITED. Out of courtesy and respect for everyone's learning environment, TURN THEM OFF!!!

**ACADEMIC DISHONESTY:** Any type of activity that is considered dishonest by reasonable standards may constitute academic misconduct. These policies are detailed in the Honor Code which you are expected to have read. The most common forms of academic misconduct are cheating and plagiarism which are easily detected and will be dealt with according to the policies set down by Augustana College. Academic dishonesty usually results in failure of the course.