

**Physics 108 - General Physics**  
**Spring Semester 2008, Section 001**  
**8:00 AM - 10:00 AM MWF in Halsey 366**

**Instructor:** Dr. R. Jambunathan ( DR.J)  
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**Off. Hours:** TBA

**General Description:**

In this course we will address questions about the nature of sound waves, light, electricity and magnetism and will develop understanding about the physical phenomena from our every day life. You will repeat in the classroom some of the old discoveries in Physics. This will master an important body of knowledge in the field of Physics and develop your ability for observation and comprehension of physical phenomena.

Physics 108 is different from the traditional science courses. It teaches science in a workshop style, using computer technology and guided-inquiry techniques. Class sessions consist of working on activities, discussions and short lectures. Discussions, lectures and laboratory experiments are very closely integrated. Laboratory experiments and discussions are the primary learning activities. You will experience working in a team and learning from each other. You will be more independent when studying the material and can use all your creativity performing the laboratory experiments.

**Texts:**

**Textbook:** Essentials of College Physics; by Serway/Vuille-(2007)

**Laboratory manual:** Workshop Physics Activity Guide, UW-Oshkosh (Spring 2007 edition)

**Grading:**

Your grade in this course will be based on the in-class participation and accomplishments, homework assignments and exams. The instructor would like to encourage the cooperative learning rather than competition for grades.

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| <b>Components:</b> | <b>Class participation</b> | <b>15%</b> |
|                    | <b>Homework activities</b> | <b>10%</b> |
|                    | <b>Exams (4)</b>           | <b>75%</b> |

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| <b>Grade Scale:</b> | <b>85-100% A;</b> | <b>80-84% AB;</b> | <b>75-79% B;</b> | <b>70-74% BC;</b> |
|                     | <b>65-69% C;</b>  | <b>60-64% CD;</b> | <b>55-59% D.</b> |                   |

**There will be no special projects. Three unexcused absences will result grade lowered by one level.**

**In-class Work:**

In-class work will consist of performing the experiments and documenting your activity, thoughts and analysis in the Activity Guide. Solving problems is also an important part of the in-class activities. You should actively participate in all class sessions. Because of the hands-on nature of this course, the attendance will be monitored. See your instructor if you can't come to class. With an excused absence you have one week from the date of the absence to accomplish the work.

**Homework assignments:**

Homework sets will be assigned approximately every two-class periods. Your solutions and answers should reflect your personal knowledge. They should be complete enough to follow and clear enough to read. However, you are encouraged to work together on the homework sets, to discuss problem solving approaches and physical concepts. I have a flexible policy on homework. Late homework sets are accepted, but will be graded down.

**Exams:**

**Four** sectional exams will take place. The exams will consist of multiple-choice questions, short-answer conceptual questions and mostly computational problems. The material for all exams will come from a material covered in class, homework problems or **those worked in class**, work on the lab activities, and any assignment reading. You will be graded both for knowledge and effort, so try to accomplish as much as you can and show all your work. The dates of the exams are included in the tentative schedule. You will have the entire two hours class period to work on the exam. The exam will be closed-book and closed-notes, but a formula sheet can be used with each exam. Make-up for the exams will be considered only in case of serious unavoidable circumstances.

**Suggestions and Policies:**

Maintain a constant level of effort rather than try to learn everything prior to the coming exam. You will work on activities and probably on the homework in a cooperative manner, but do not copy each other's work. Use your own approach and style. You should come to class prepared: complete the assigned homework, read the suggested sections in the textbook and glance through the sections in the Activity Guide to be covered during the class session.