

Physics - The scientific study of the physical world

Physicists ask the simplest questions about the physical world:

How does it work? (What are the underlying principles or rules)

What are the simplest parts of matter?

What is energy?

What is the universe like, how did it begin, how is it changing?

The major topics of study in this course will be:

- Force
- Energy
- Motion
- The Atom

Answers to questions you might have:

What will the work be like this year?

The 'language' of physics is mathematics. There will be a lot of mathematical problem solving. This class uses a lot of algebra, a little trigonometry and geometry. (see Mathematics HW sheet)

What kinds of professions use physics on a regular basis?

X-ray technicians

Architects

Physical therapists

All Engineers

(people who use science to make things)

Laser Surgeons

Doctors treating Cancer,

Why is physics important?

Our everyday life is filled with inventions or structures made possible by the discoveries of physicists (the list is endless)

TV	Radio	Eye Glasses	Computers	Lasers
Electric Motors	Efficient Gas Engines	Air Conditioning	Nuclear Energy	X-Rays
Stereos	Large Bridges	Sky Scrapers	Refrigerators	Electric Guitars
Remote Controls	Electricity	Laser Surgery	Food Purification	Microwaves
Heat Lamps	Copy Machines	Bar Code Scanners	Jet Planes	CDROMS

Grade Breakdown

Tests & Quizzes	60%
Lab Reports	20%
Homework	15%
Classroom Grade	5%

A. Tests

- given every 2 - 3 weeks
- 20 - 33 Multiple choice
- 3 - 5 problems, drawings or short answer questions

If you are absent for a test you must make it up on the day you return to school or present a note from home explaining why this is not possible.

B. Lab Reports

- Approximately 5 - 6 Lab reports per quarter
- done independently (when outside the classroom)
- usually given a week to complete
- points are taken off for late labs

1 day late - **15 pts off 2 or more days late - **20 pts off****

You will find your labs on the St. Mary's physics website. If you come to class without your lab, you will have **10 points deducted** from your grade.

C. Quizzes

- ordinarily last no more than 15 to 25 minutes
- often similar to questions given in previous homeworks.

D. Homework - Homework is a very important component of this class.

*** No credit will be given for answers that are missing calculations

*** No credit for answers that are not in full sentences

- Will be checked from time to time
- From time to time, will be collected, without notice
- Short quizzes will be given based on the HW

E. Classroom Grade - A student will full get a perfect Classroom Grade by being

1. **Prepared** (2 points off each time you're unprepared) **(40 pts)**

- all supplies needed for a given day
- notebook and textbook open to the appropriate page

2. **Being Attentive** **(20 pts)**

- no outside distractions
- attentive to lesson, teacher and to contribution of fellow students

3. **Involved** in class discussions **(30 pts)**

- Answering questions
- Asking questions
- Sharing outside experiences

4. **Respectful** to teacher and fellow students **(10 pts)**

Multiple Choice Homework Format

Acceptable - Full Credit - Answer number and Answer

(If calculations are used, show them) Homework is to be done on loose-leaf

Acceptable	
Jane Doe #5	9/12/2008
Section 278	

- | |
|---------------------|
| 1. (2) acceleration |
| 2. (3) velocity |
| 3. (1) displacement |
| 4. (3) direction |

UNAcceptable - No Credit	
Jane Doe #5	9/12/2008
Section 278	
1.(2) 2.(3) 3.(1) 4.(3)	

*** No credit will be given for answers
that are missing calculations

*** No credit for answers that are not in full sentences

Homework will:

- Will be checked from time to time
- Short quizzes will be given based on the HW