Mechanics

PHYS 152 Tentative Syllabus

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Office hours: Wednesday 11 am – noon, Thursday 1 pm – 2 pm, Friday 11 am – noon. You are also welcome to email if you have any questions.

Course requirements:

Textbook: Quick Study Physics Chart (recommended)
Physics for scientists and engineers, 2nd edition (recommended)
By R. D. Knight (published by Pearson Addison-Wesley)
Student workbook, (REQUIRED)

Lectures: Tuesday, Wednesday, Thursday and Friday 12:00 pm – 12:50 pm, KT 132

Labs: Friday 9:00 am – 10:50 am Or Friday 1:30 pm – 3:20 pm Or Thursday 9:00 am – 10:50 am, KT 129

Grading:

In class quizzes	10%
Homework assignments	25%
Labs	20%
Midterm Exams (8%, 8% and 9%)	25%
Final Exam (**Tue. 05/04, 1 pm - 3 pm**)	20%

General Policies:

1. Final grade assignment:
   A^+ = 97%-100% (4.0GP) A= 93-96.99% (4.0 GP) A^- =90%-92.99% (3.7 GP)
   B^+ = 87%-89.99% (3.3GP) B= 83-86.99% (3.0 GP) B^- =80%-82.99% (2.7 GP)
   C^+ = 77%-79.99% (2.3GP) C= 73-76.99% (2.0 GP) C^- =70%-72.99% (1.7 GP)
   D^+ = 67%-69.99% (1.3GP) D= 63-66.99% (1.0 GP) D^- =60%-62.99% (0.7 GP)
   F = 0-59.99% (0 GP)

2. Homework assignments are due by 4:30 on the indicated dates. Late submission may be accepted for partial credit. Half of the full score of that assignment will be taken off **PER DAY** past due.
3. All in class quizzes are "pop-up" quizzes. Absolutely **NO** make-up quizzes.

Lab Policies:

Each lab is graded based on a full credit of 20 points, which includes 5 points for pre-lab, 5 points for the lab performance, and 10 points for the final task. A maximum of 2 make-up labs are allowed, which needs to be coordinated with the lab instructor for your section.

Objective of the class:

Students who successfully complete this course will have working knowledge of mechanical phenomena. You are encouraged to apply the knowledge to explain the problems you may come across in your life. At the end of this course, you will be able to perform analytically thinking and quantitatively solving a lot of real-world questions.

The labs are not designed to repeat what you learn in the lectures. Instead, you are to discover some important physics principles by yourself and then to master those ideas. Therefore, the labs are not necessarily scheduled at the pace of lectures. In your labs, please be prepared to run into new questions which may not be covered in the lecture yet.

DISABILITIES STATEMENT: If you have a disability and need assistance, special arrangements can be made to accommodate most needs. Contact the Director of Services for Students with Disabilities (Walb Union, Room 113, telephone number 481-6658) as soon as possible to work out the details. Once the Director has provided you with a letter attesting to your needs for modification, bring the letter to me. For more information, please visit the web site for SSD at http://www.ipfw.edu/ssd/

Physics 152 Tentative Schedules Spring 2010

Week	Days	Activities
1/12	T	Introduction
	W	Ch 0: Nature of science
	Th	Ch 0: Measurement & Math preparation
	F	Ch 1&2: 1D motion
1/19	T	Ch 1&2: 1D motion
	W	Ch3. Vector algebra
	Th	Ch3. Vector algebra
	F	Ch4. 2D & 3D motion
1/26	T	Ch4. 2D & 3D motion
	W	Ch4. projectile motion
	Th	Ch4. circular motion
	F	Ch4. relative motion
2/2	T	Ch5-8. Newton's Law
	W	Ch 5-8. Newton's Law
	Th	Ch5-8. Newton's Law
	F	**Midterm Exam I**

2/9	T	discussion on test 1
	W	Ch5-8. Force & Motion
	Th	Ch5-8. Force & Motion
	F	Ch5-8. Force & Motion
2/16	T	Ch10-11. Energy & Work
	W	Ch10-11. Energy & Work
	Th	Ch10-11. Energy & Work
	F	Ch10-11. Conservation of Energy
2/23	T	Ch10-11. Conservation of Energy
	W	Ch10-11. Conservation of Energy
	Th	Ch10-11. Conservation of Energy
	F	Ch10-11. Conservation of Energy
3/2	T	Ch9. Linear Momentum
	W	Ch9. Linear Momentum
	Th	Ch9. Linear Momentum
	F	**Midterm Exam II**
3/9	T	Spring Break
	W	Spring Break
	Th	Spring Break
	F	Spring Break
3/16	T	discussion on test 2
	W	Ch9. Linear Momentum & Collisions
	Th	Ch9. Linear Momentum & Collisions
	F	Ch9. Linear Momentum & Collisions
3/23	T	Ch 9-11: Energy and momentum in systems
	W	Advanced problem solving: Energy and momentum
	Th	Ch12. Rotation
	F	Ch12. Rotation
3/30	T	Ch12. Rotation & Angular momentum
	W	Ch12. Angular momentum & rolling
	Th	Ch11. Rolling & Torque
	F	Ch11. Rolling & Torque
4/6	T	Spillover: Combination of translation and rotation
	W	Ch 11: Equilibrium
	Th	Ch 11: Equilibrium
	F	**Midterm Exam III**
4/13	T	discussion on test 3
	W	Ch 13: Gravity
	Th	Ch 13: Gravity
	F	Ch 14: Oscillations

4/20	T	Ch 14: Oscillations
	W	Ch 14: Oscillations
	Th	Ch 14: Oscillations
	F	Ch 15: fluids and elasticity
4/27	T	Ch 15: fluids and elasticity
	W	Spillover: advanced topics
	Th	Spillover: advanced topics
	F	To be announced
5/4	**T**	**Final Exam on Tuesday, May 5, 1-3 pm.**