

LIU – POST

PHY 11

Arvind Borde, College Physics I, Fall 2018

4 credits

- Classes* Tu/Th | §1: 2:00–4:50; §2: 8:00–10:50; PH 209.
- Website* <http://arvind-borde.org/courses/phy11/>
- Instructor* Arvind Borde | arvind.borde@liu.edu | <http://arvind-borde.org/>
- Office* PH235; telephone: (516) 299 3647. Hours: T, Th, 12:30–2:00 pm, or by appointment.
- Bulletin* Physics 11 is the first half of an introductory, non-calculus physics course that covers the laws and principles of mechanics, thermodynamics, and waves.
- Text, etc.* *Physics: Principles with Applications*, Seventh Edition. Douglas C. Giancoli. Publisher: Addison-Wesley (2014); scientific calculator (bring to every class).
- Rules* **Do:** attend all classes/labs, come on time, stay for the duration, pay attention.
Don't: talk among yourselves (except in lab), be disruptive, text, have your phone out. Violating any of these will be marked as an absence and will lead to further disciplinary action. Three or more violations will lead to an automatic F. You may use a computer or tablet to take notes, but must be prepared to sit in the first row if asked.
- Homework & Tests* Weekly homework is on the website. You must attempt it the day it is assigned. If you have difficulties, see me or a tutor *that week itself*. HW will be discussed in the class immediately following. Specific questions will be answered in class, but not general ones about the whole assignment. You must have the homework available in a separate notebook or folder, with your name on each assignment, or clearly marked as such in the class notebook. You must bring the homework and class notebook with you if you want extra help in my office. It is your responsibility to catch up on material you miss for any reason. You should expect to spend 6 hours a week on this course outside class.
- You may use one 3" × 5" index card (both sides) on tests and must produce it if asked. Tests will be based mainly on material and homework covered since the previous test, but familiarity with all material covered up to that point is expected. You will need a dedicated calculator (not cell phone or tablet computer) on all tests. *There are no make-up tests. If you miss a test for any reason you will get a score of –1 on it.* You must keep all your tests through the term. The complete test schedule is on this syllabus.
- Grades* First see the rules above. There will be 6 tests. Your 5 best scores each count 15% toward your grade. The labs count for 25%. There will be a grade boost if you have regularly done the homework over the term.
- Note* Last day to drop: September 18. Last day to withdraw: November 9.

I have understood the syllabus, course requirements, grading method, and rules, and agree to abide by them. I have retained a copy of this syllabus for my records. I have filled out the form overleaf.

Signature: _____ Date: _____

Name: _____

Name (print clearly):

Major:

Last physics, other science, and math classes taken (what, when, where):

Career goals:

Dream goals (If earning money were not an issue what would your perfect life be like?):

Math/science weaknesses (if any):

Math/science strengths:

Anything in particular that you wish to learn in this course:

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**PLEASE PLACE THIS COPY AT THE FRONT OF YOUR NOTEBOOK/FOLDER
YOU MUST HAVE IT WITH YOU IN EVERY CLASS**

Week 1

Thursday, September 6
 Course introduction and review.
 Ch. 1: Measurement; estimating.


Week 2

Tuesday, September 11
 Ch. 2: Describing motion I:
 Kinematics in 1d.

Thursday, September 13
 Lab 1: Measurement

Week 3

Tuesday, September 18
 Ch. 3: Describing motion II:
 Kinematics in 2d with vectors.

Thursday, September 20
 Lab 2: Force table


Week 4

Tuesday, September 25
 Ch. 4: Newton's Laws of motion
 Dynamics.

Test 1: Chapters 1 & 2.


score

%

Thursday, September 27
 Lab 3: Air track

Week 5

Tuesday, October 2
 Ch. 5: Circular motion; gravitation.

Thursday, October 4
 Lab 4: Hooke's Law


Week 6

Tuesday, October 9
 Ch. 6: Work and energy.

Test 2: Chapters 3 & 4.


score

%

Thursday, October 11
 Lab 5: Centripetal force

Week 7

Tuesday, October 16
 Ch. 7: Linear momentum.

Thursday, October 18
 Lab 6: Ballistic pendulum


Week 8

Tuesday, October 23
 Ch. 8: Rotational motion.

Test 3: Chapters 5 & 6.


score

%

Thursday, October 25
 Lab 7: Moment of inertia

Week 9

Tuesday, October 30
 Ch. 11: Waves.

Thursday, November 1
 Lab 8: Simple harmonic motion


Week 10

Tuesday, November 6
 Ch. 12: Sound.

Test 4: Chapters 7 & 8.


score

%

Thursday, November 8
 Lab 9: Waves on a string

Week 11

Tuesday, November 13
 Ch. 10: Fluids.

Thursday, November 15
 Lab 10: Speed of sound

Week 12

Tuesday, November 20
 Ch. 13 & 14: Temperature and heat.

Test 5: Chapters 11 & 12.

score

%

Thursday, November 22
 Thanksgiving: no class

Week 13

Tuesday, November 27
 Ch. 15: The Laws of Thermodynamics.

Thursday, November 29
 Review.

Week 14

Tuesday, December 4
 Course review.

Test 6: Chapters 10, 13–15.

score

%

Thursday, December 6
 Test return.