

SPRING 2008
SYLLABUS for PHYS 1111: Introductory Physics
Version: 01/01/2008

(This syllabus is a general plan for the course; deviations may be necessary.)

Instructor: Dr. Andrei Galiautdinov
Department of Physics and Astronomy, University of Georgia
Office: 228B
Email: ag@physast.uga.edu

COURSE DESCRIPTION: The first semester of a two-semester introductory course in physics. A knowledge of algebra and trigonometry is assumed. Mechanics (forces, Newton's laws of motion), wave phenomena, and thermodynamics. Offered fall, spring, and summer semesters every year.

I. MEETING TIMES

- Section 99-431: MWF(10:10 – 11:00)
- Section 36-914: MWF(12:20 – 1:10)
- Students are not allowed to attend the section that they are not registered for.

II. OFFICE HOURS

- By appointment during the following time slots: M(11:00 - 12:00) & W(1:10 - 2:10)

III. COURSE MATERIALS

- Text: James S. Walker, *Physics*, Volume I, 3rd (Blue Cover) Edition (2007)
(2nd edition is fine provided you do all the "right" assignments)
- Interwrite PRS RF Clickers <http://www.interwritelearning.com/products/prs/radio/detail.html>
- All other materials related to this course, including Announcements, Homework/Online Quizzes/Reading Quizzes, due dates/times, etc. will be posted at <https://webct.uga.edu> under *PHYS1111 (SPRING 2008) (Galiautdinov)*.
- You must check your WebCT account regularly.

IV. GRADING POLICY

A. General provisions

- Your Overall Percentage Score Average will be determined as follows:

18% of Lab Grade (attendance mandatory) +
10% of Homework/Online Quizzes/Reading Quizzes +

3% of In-Class Participation +
2% of Diagnostic Test 1 (attendance mandatory) +
2% of Diagnostic Test 2 (attendance mandatory) +

8% of Test 1 +
10% of Test 2 +
12% of Test 3 +

35% of Final Exam

= 100%

- Letter Grades will be determined in accordance with the following cut-offs (for additional rules see Sec. IV B and IV C):
A(93), *A*–(90), *B*+(87), *B*(83), *B*–(80), *C*+(75), *C*(70), *C*–(65), *D*(55)

B. Labs policy

- All students are required to attend labs.
- Students who are not assigned a Lab Grade (due to non-attendance) will receive a failing grade of “F” for the course.

C. Final Exam policy

1. General Final Exam provisions

- All students are required to take the Final Exam.
- The Final Exam grade will automatically replace the lowest of your three hourly tests, if it is higher. *Such replacement will not be allowed for students who are found to violate the UGA Academic Honesty Policy.*
- One (1) absence for any test will allow Final Exam grade to be substituted for that test grade.
- No more than one (1) Final Exam grade substitution will be allowed per semester.

2. An “Incomplete” policy

- Upon request, a student will be assigned an “I” if (s)he did not take the Final Exam, provided *all* of the following applies:
 - a) student attended labs,
 - b) student has not missed any of the hourly tests,
 - c) all homework assignments have been submitted,
 - d) *all* work (such as labs, tests, homework) was performed satisfactorily (> 70%),
 - e) no violation of Academic Honesty Policy took place in the course of semester.
- In any other situation, a student who missed the Final Exam will be assigned a grade on the basis of her/his Overall Percentage Score Average as detailed in Sec. IV A, IV B, IV C 1.

V. HOURLY TESTS POLICY

- There will be three (3) closed book, closed notes in-class tests on selected chapters.
- The instructor reserves the right to design and administer the tests in whatever manner is appropriate.
- The material covered on the tests and the test dates will be announced in class.
- Make-up exams will not be given.
- You may bring with you one (1) sheet of paper containing anything you think might be useful on the test (physical constants, formulae, diagrams, problem solutions, etc.), as long as it is *all handwritten*. You may write on both sides. *This provision does not apply to the Final Exam.*
- The only electronic item allowed on the test is a simple (non-graphing, non-symbolic, non-programmable) scientific calculator.
- You are not allowed to use any other electronic device(s). If you do, you will be violating the UGA Academic Honesty Policy.
- On the tests you must work individually.
- If you are finished early, submit your work and leave quietly.

VI. SUBMITTING WORK AFTER DEADLINE

- No assignment will be accepted late.
- Asking to record a grade after deadline will constitute a violation of the UGA Academic Honesty Policy.

VII. MAKE-UP POLICY

- No make-ups of tests, homework, or final exam will be allowed.

VIII. ACADEMIC HONESTY

- Your academic work must meet the standards contained in “A Culture of Honesty.” You are responsible to inform yourselves about those standards before performing any academic work.

IX. HOW TO DO WELL IN THIS CLASS

- Our goal in this class is four-fold:
 1. To apply basic physical principles to realistic situations.
 2. To solve realistic problems.
 3. To perceive and/or resolve contradictions involving our, deeply rooted in intuition, preconceptions.
 4. To organize the ideas of physics hierarchically.
- There is no easy way to achieve that.
- Educational research has consistently shown that lectures alone are generally inefficient in conveying information to most students, and are even less effective in teaching reasoning skills.
- **Active learning is the key to success in physics.**
- No matter how good the text is, no matter how well the course is designed, your effort to learn physics effectively will fail if you do not come to class prepared. Such preparation includes, among other things, *reading and thinking about the subject ahead of time*.
- Do not expect to understand everything you read; however, you do have to make an honest effort.
- When you read your text, make notes, record questions, and ask your questions in class.
- **You must solve problems, all the time, as many as you possibly can.**
- You can no more learn to think like physicists *simply* by listening to the lecture than someone can become a pianist simply by listening to a pianist play, which means that listening is no replacement for personal practice.
- Reading a section ahead of time prepares you for the unexpected. By knowing what to expect you eliminate the need to frantically write down everything your instructor says in class. Instead, you will be spending your precious time actively thinking about the topic and recording only those things that matter most.

TABLE I: **Spring 2008 Master Schedule**

ATTENTION: This schedule is preliminary. It is subject to modification, possibly including exam dates. *Updated versions will be posted on WebCT.*

Week	Dates	Reading	Topics	Important Dates
1	Jan. 07 – Jan. 11	1.1–8 2.1–7	Intro to Physics 1D Kinematics (intro.)	M WF
2	Jan. 14 – Jan. 18	2.1–7 3.1–6	1D Kinematics (cont.) Vectors in Physics	M WF
3	Jan. (21) – Jan. 25	— 4.1–5	— 2D Kinematics (intro.)	M(MLK DAY) WF
4	Jan. 28 – Feb. 01	4.1–5	2D Kinematics (cont.) TEST #1: Chapters 1-4 DIAGNOSTIC TEST #1	M W(Jan. 30) F(Feb. 01)
5	Feb. 04 – Feb. 08	5.1–7	Newton's Laws of Motion	MWF
6	Feb. 11 – Feb. 15	6.1–5 7.1–4	Applications of Newton's Laws Work & Kinetic Energy	MW F
7	Feb. 18 – Feb. 22	7.1–4	Work & Kinetic Energy DIAGNOSTIC TEST #2	MW F(Feb. 22)
8	Feb. 25 – Feb. 29	8.1–5	Potential Energy & Conservation of Energy	M(MIDTERM)WF
9	Mar. 03 — Mar. 07	9.1–3	TEST #2: Chapters 5-8 Linear Momentum & Collisions (intro.)	M(Mar. 03) WF
—	Mar. 10 – Mar. 14	—	—	M-F(SPRING BREAK)
10	Mar. 17 – Mar. 21	9.4–7 10.1–6	Linear Momentum & Collisions (cont.) Rotational Kinematics & Energy (intro.)	MW F
11	Mar. 24 – Mar. 28	10.1–6 11.1–8	Rotational Kinematics & Energy (cont.) Rotational Dynamics & Static equilibrium (intro.)	MW F
12	Mar. 31 – Apr. 04	11.1–8	Rotational Dynamics & Static equilibrium (cont.)	MWF
13	Apr. 07 – Apr. 11	12.1–5	Gravity	MWF
14	Apr. 14 – Apr. 18	13.1–7	TEST #3: Chapters 9-12 Oscillations About Equilibrium	M(Apr. 14) WF
15	Apr. 21 – Apr. 25	14.1–9	Waves & Sound	MWF
16	Apr. 28 – May 02		REVIEW FINAL EXAM	M(CLASSES END) F(May 02, 7:00 - 10:00pm)