

# Fall 2007 Physics 121 Course Outline

## Faculty:

- Rich Janow: 423B Tiernan, [janow@njit.edu](mailto:janow@njit.edu), (973) 596-3549, <http://web.njit.edu/~janow>
- Dale Gary: 101D Tiernan, [dgary@njit.edu](mailto:dgary@njit.edu), (973) 642-7878, <http://web.njit.edu/~dgary>
- Wenda Cao: 101C Tiernan, [wcao@bbso.njit.edu](mailto:wcao@bbso.njit.edu), (973) 596-5301, <http://web.njit.edu/~wcao>

**Office hours will be posted on instructor's schedules. Other times by appointment**

## Pre-requisites and co-requisites:

- Pre-requisites: Phys 105-106 or Phys 111 and Math 111 (differential calculus) or equivalents
- Co-requisites: Integral calculus.
- All students must register for the **laboratory** course Physics 121A. Withdrawal from Phys 121 or Phys 121A will cause a simultaneous withdrawal from **all** parts of Physics 121. There is no workshop.

## Course Materials:

- **Primary text (FOP): Fundamentals of Physics, Part 3**, Seventh Edition, Halliday, Resnick and Walker (Wiley, New York, 2004). Includes Chapters 21 to 31 (Abbreviation: FOP).
- **University of Texas Homework System:** Each student must register by obtaining a guest UT ID and password (<https://hw.utexas.edu/roster.html>) and by **also** signing up for the course itself using the course number provided by his/her instructor. Students who have a UT ID and password already can reuse it. Homework assignments will be posted on-line. Students login at <https://hw.utexas.edu>, download assignments, solve the problems, and submit answers to the automated grading system. More specific information is provided below and also by the instructors.
- **Web Sites:** Instructors may use their own or others' web sites for posting lecture notes, problems, exam results, study materials, etc. So go there often.

**Laboratory - Physics 121A:** The laboratory course must be taken concurrently with Physics 121 unless you took it and passed it previously. **If you drop Physics 121 you automatically drop the lab - no exceptions.** Physics 121A Lab is otherwise a totally separate course from Physics 121. Students will receive separate grades for it and the lab instructors set the requirements and policy. The lab manual (Physics Laboratory Manual II) can be purchased at the bookstore; you can check the lab schedule at <http://web.njit.edu/classes/physlab/>.

**Examinations:** There will be three Common Exams and a comprehensive Final Exam during the term. The exam schedule is:

- **Common Exam 1:** Friday, October 5 8:30 – 9:45 am
- **Common Exam 2:** Friday, November 2 8:30 – 9:45 am
- **Common Exam 3:** Wednesday, November 21 8:30 – 9:45 am
- **Comprehensive Final Exam:** during December 14 - 20. 2.5 hours

Short quizzes covering the preceding week's work will usually be given during each lecture and/or recitation. **The grades count toward your final course grade.** There will be no make-up quizzes.

**Grading:** The final grades will be based on a **composite score** that includes each common exam score, the final exam, short quizzes, and the term's homework score. Here are the approximate weights to be used for calculating the composite score:

- **48%** for all three common exams (16% each)
- **32%** for the final exam
- **15%** for the total homework grade
- **5%** for the total lecture/recitation short quiz grade

Extra credit may be given occasionally for solving extra credit problems (to be announced during lectures), for active participation in the class, etc. Negative credit may be given for being late, creating noise or otherwise interfering with the work of the class.

**Honor Code Violations or Disruptive Behavior:** NJIT policy is zero-tolerance for cheating of any kind and for student behavior that disrupts learning by others. Incidents will be immediately reported to the Dean of Students. The penalties for violations range from a minimum of failure in the course plus disciplinary probation up to expulsion from NJIT with notations on a student's permanent record. Avoid situations where your own honorable behavior could be misinterpreted. **Students will be required to agree to the NJIT Honor Code on each exam.**

**Assignments:** The weekly text, practice problem, and homework assignments are listed in the **schedule** below. It is almost impossible to succeed in this course without working a lot of problems

- The weekly **text readings** are in **FOP** (Halliday & Resnick). Read each assigned section before the Lecture covering the material in it. We suggest that you download instructor's lecture notes (if available) and bring them to class.
- There is a set of "**practice problems**" posted for on-line with solutions. These will not be graded, but they are a good way to get up to speed before doing the online homework and they are a favorite source of exam questions. The url is: <http://web.njit.edu/~janow/Physics 121 Fall 2007/Phys 121Janow Fall 2007.html>
- Each student must download weekly **homework problem** assignments from the University of Texas homework system and submit the solutions online before each assignment is due. Late work will not be accepted. In general, you will have about a week after homework is assigned to finish and submit it.
- **Homework scores count cumulatively about as much as one common exam toward your final course grade.** Students who do not submit the homework are automatically lowering their class average by up to 15%.
- **Homework due dates** will be announced by each instructor. They depend on the class schedule but will generally allow you at least one week-end to complete the work.

**Attendance:** Attendance at lectures, recitation classes, and exams is **mandatory**. Instructors will take attendance regularly. A total of **3 unexcused absences** from lecture, recitation, and workshop in any combination is regarded as excessive: the Dean of First Year Students may be notified and a student may be dropped from the course. Students with several **excusable** absences should contact the Dean of Freshman Studies. If you withdraw from the course, do it officially through the Registrar; do not simply stop attending and taking exams. Students who withdraw unofficially force the instructor to assign a course grade of "F".

**Courtesy:** Please do not eat, drink, or create noise that interferes with the work of students or instructors. **Cellular phones, wireless devices, notebook computers, and messaging devices of all kinds must be turned off during class meetings and exams.**

**Help:** If you are having difficulty visit or email your instructor; do not simply hope for a miracle and fall further behind. The Physics Learning Center (401 Tiernan) can provide ongoing help; it is staffed by faculty and trained Teaching Assistants. The Physics Dept. office on the 4<sup>th</sup> floor of Tiernan has more information. Tutors may also be available through the Residence Halls organization.

### **Specific information for the UT homework system:**

UT Guest ID Registration: [https://utdirect.utexas.edu/nlogon/eid\\_suite/essentials/create\\_eid.WBX?portal\\_role=0](https://utdirect.utexas.edu/nlogon/eid_suite/essentials/create_eid.WBX?portal_role=0)

UT HW Student Instructions: <https://hw.utexas.edu/bur/studentGuestEID.html>

Student Login Page (Univ. of Texas): <https://utdirect.utexas.edu/security-443/UTEIDLogon.wb>

UT EID Home Page (Forgotten Password): [https://utdirect.utexas.edu/nlogon/eid\\_suite/general/](https://utdirect.utexas.edu/nlogon/eid_suite/general/)

**If you already have a UT Guest login ID and password, you can continue to use it. Your instructor will announce the 5 digit course number you need to use when you register for Physics 121 in the UT system.**

- Fill out the following for your own future reference, and keep it someplace where you can find it:
- Unique course number to be announced by instructors: \_\_\_\_\_
- Your Login ID on the UT system (generated when you register with UT; case sensitive!): \_\_\_\_\_
- Your own password (selected upon registration with UT; confidential!): \_\_\_\_\_
- **Note that NJIT instructors can not access your password.**