PHYSICS - 214 **SUMMER II - 2006**

GENERAL PHYSICS II

Lecture: MTWThF 10:00 a.m. to 11:50 a.m., Room 109 Lewis Hall
Instructor: Dr. Ostrovskii, Igor
Office: Room 207 Lewis Hall, Email: iostrov@phy.olemiss.edu

- **Office Hours: MWTh 3:30 – 4:30 p.m. (207 Lewis Hall)**
- **Text**: Introductory Physics (Building Understanding), 1st edition, 2006, by Jerold Touger ; (Chapters 15 through 28), John Willey & Sons, Inc.
- **Grading scale and evaluation**:
  - Grading Scale: A's --- 90 – 100%; B's --- 80 – 89%; C's ---70 – 79%; Etc.
  - Grades will be based on homework, tests, and the final examination:
    Homework ---------- 20%
    Two tests ---------- 40% (#1=20%, #2=20%)
    Final exam ---------- 40%

- **Homework Rules:**

1. Homework is assigned almost every class period and is due at the beginning of the **next** class period.
2. Homework paper should be 8.5 x 11 inches with no torn or tattered edges and should be stapled.
3. Show all your work; **the answer alone is not worth anything**.
4. Homework problems must include **enough English to be understandable.**
5. Homework answers should have units and a reasonable number of significant digits.

- **Circle the finale answers that you want to be graded.**

- **Tests and Final examination schedule:**

Test 1, PART 1, Chapters 15 through 21 ---------- Thursday, July 13

Test 2, PART 2, Chapters 22 through 27 ---------- Monday, July 24

- Final examination ---------- NOON on Thursday, July 27, 2006.

- **Common Courtesy Guidelines:**

For the benefit of your fellow students and your instructor, you are expected to practice common courtesy with regard to all course interactions. **For example:**

- Show up for class on time.
- Do not leave class early, and do not rustle papers in preparation to leave before class is dismissed.
- Be attentive in class; stay awake, don't read newspapers, etc.
- If you must be late or leave early on any particular day, please inform your instructor in advance.
- After the first day, you will need to sit in the same seat for each class.
- **Absence** may jeopardize your standing in class because you are responsible for any in-class activities.

- Students who do not practice common courtesy should expect their grade to be reduced because their in-class activity is under the question.

COURSE CONTENT:

I. OPTICS

Chapter 15 – Wave Optics [4 hrs]

Chapter 16 – The Geometry of Wave Paths and Image Formation:
Geometric Optics [2 hrs]

Chapter 17 – Lenses and Optical Instruments [3 hrs]

II. ELECTRICITY

Chapter 18 – Electrical Phenomena: Forces, Charges, and Currents [2 hrs]

Chapter 19 – Electric Field and Electric Potential [2 hrs]

Chapter 20 – Quantitative Treatment of Current and Circuit Elements [2 hrs]

Chapter 21 – Quantitative Circuit Reasoning [3 hrs]//=18 hrs

- **TEST 1 (CLASS # 19), CHAPTERS 15 - 21 ---------- THURSDAY, JULY 13** [1 hr]

III. MAGNETISM

Chapter 22 – Magnetism and Magnetic Fields [3 hrs]

Chapter 23 – Electromagnetic Induction [2 hrs]

IV. MODERN PHYSICS

Chapter 24 – As the Twentieth Century Opens: The Unanswered Questions [2 hrs]

Chapter 25 – Relativity [3 hrs]

Chapter 26 – Inroads into the Micro-Universe of Atoms [1 hr]

Chapter 27A – The Concept of Quantization I [2 hrs]//=32 hrs

- **TEST 2 (CLASS # 33), CHAPTERS 22 - 27 ---------- MONDAY, JULY 24** [1 hr]

Chapter 27B – The Concept of Quantization I [1 hr]

Chapter 28 – The Nucleus and Energy Technologies [3 hrs]

REVIEW [1 hr]/// Total = 38 hrs

- **FINAL EXAMINATION ---- NOON on Thursday, July 27, 2006** [3 hrs]

- The dates and hr-schedule are tentative, and may be changed (**but not Final exam!**).