

# PHYSICS 514 – – FALL 2004

## Current Research Instruments

Lecture: T $\theta$  – 11:20 - 12:40  
 Room: PP-124  
 as of August 31, 2004, subject to change

Harold Metcalf - S225  
 632-8185 or 8100  
 hmetcalf@notes.cc.sunysb.edu

| Week #<br>Monday<br>date | Tuesday                                    | Thursday                                 | Homework                                     |
|--------------------------|--|--|--|
| I<br>8/30                | Vacuum I<br>(Metcalf)                      | Vacuum II<br>(Metcalf)                   |  |
| II<br>9/6                | Vacuum III<br>(Metcalf)                    | Feedback and<br>Control(Metcalf)         |  |
| III<br>9/13              | Advanced Technology<br>Lab (Davis)         | <b>NO CLASS</b><br><b>Rosh Hashannah</b> |  |
| IV<br>9/20               | Signals and Noise<br>(Metcalf)             | Atomic Structure<br>(Metcalf)            | feedback<br>paper due                        |
| V<br>9/27                | Optical Instruments<br>& Lasers (Metcalf)  | Femto-second<br>Physics (Weinacht)       |  |
| VI<br>10/4               | Stabilized and tunable<br>Lasers (Metcalf) | Temperatures High<br>and Low (Metcalf)   |  |
| VII<br>10/11             | Low Temperatures<br>(Graf)                 | Tour of<br>Laser Labs                    | Lasers and Optical<br>Instruments papers due |
| VIII<br>10/18            | Very Low<br>Temperatures (Graf)            | Tour Helium<br>Liquefier (Davis)         |  |
| IX<br>10/25              | Accelerators<br>(Metcalf)                  | Beams & Our Linac<br>(Metcalf)           | Low temp<br>papers due                       |
| X<br>11/1                | Our Linac<br>(Noé)                         | Tour Linac<br>(Lefferts)                 |  |
| XI<br>11/8               | Introduction to<br>X-rays (Metcalf)        | Synchrotron<br>Radiation (Metcalf)       | Nuclear and accelerator<br>papers due        |
| XII<br>11/15             | X-ray methods<br>(Jacobsen)                | X-ray Microscopy<br>(Kirz)               |  |
| XIII<br>11/22            | Tour of NSLS (maybe)<br>(Brookhaven)       | <b>NO CLASS</b><br><b>Thanksgiving</b>   |  |
| XIV<br>11/29             | Neutrinos and<br>Super-K (Jung)            | The D0 detector<br>Fermilab (Hobbs)      | X-ray papers<br>due                          |
| XV<br>12/6               | RHIC and PHENIX<br>(Hemmick)               | TBA                                      |  |