# Schedule

## Rock 'n Science Fall 2006

### Tentative Schedule

The schedule below is a tentative schedule for this seminar course. Topics may change due to popular demand or timing. This is your seminar course so you can help guide the directions we head.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/29</td>
<td>Introduction: Waves: Propagation, reflection and acoustics. or Library Assignment</td>
</tr>
<tr>
<td>10/6</td>
<td>Library Assignment</td>
</tr>
<tr>
<td>10/13</td>
<td>Electricity and Magnetism, Microphones, Pickups and Speakers</td>
</tr>
<tr>
<td>10/20</td>
<td>Wave Interactions: superposition and Interference</td>
</tr>
<tr>
<td>10/27</td>
<td>Oscillators and Feedback: History and Hendrix</td>
</tr>
<tr>
<td>TBA</td>
<td>Hult Center or Beall Hall Acoustics Tour (This will probably occur some other day in the week...)</td>
</tr>
<tr>
<td>11/3</td>
<td>Sound Waves of many frequencies: Fourier (Its Place in Rock History))</td>
</tr>
<tr>
<td>11/10</td>
<td>Recording and audio effects</td>
</tr>
<tr>
<td>11/17</td>
<td>Instruments Analysis and Guitar Effects Box</td>
</tr>
<tr>
<td>12/1</td>
<td>Final Meeting, Open Discussion</td>
</tr>
</tbody>
</table>

### Grading:

Grading for this course will be based on:

- **Class Participation** in class discussions and short written reports that includes observations, measurements, questions and answers that came up during the seminar sessions. Also, you will be making short journal entries after each meeting. A physics and history course will alter the way you look at the world. What do you see now that you hadn't before? News article relate to what you are studying?
- **Mandatory Attendance:** All seminars must be attended to receive a passing grade. You cannot participate in a seminar if you are not there. Be sure to contact me as soon as possible if you miss a seminar session.
Announced on Blackboard.

You should check Blackboard frequently for announcements, course materials, grades, etc. If a class is cancelled due to inclement weather or illness it will be

No classes will be cancelled due to instructor illness [i.e., Monday, Tuesday, and Thursday only]

Lectures:

11:30 AM–1:00 PM, WED: 9:00-9:50 AM CRN 16177, 16178

Instructors:

Announced in the next cycle. Use the course syllabus as a guide to the course of study.

The final grade is determined by the instructor and not by the attendance.

1.2 WILLIAM HALL, 11:30 AM, CRN 16177 (CRN 16178)

Tutorials:

11:30 AM–1:00 PM, THU: 2:00 PM–4:00 PM

CRN 16177, 16178

WED: 9:00-9:50 AM CRN 16178
The course is a laboratory course, PHYS 204 — Introduction to Physics Laboratory, designed to accompany General Physics. The laboratory exercises should help you understand the physical concepts covered in the lectures. For more information on this course contact Prof. Dean Leverkus.

If you know in advance you will miss an exam, it may be possible to take it early.

Whereby exams will only be given in extraordinary cases with a documented excuse (doctor’s note).

Problems:

for short problems, exam problems will include ones similar to the homework and/or midterm.

The exam will consist of one long problem and six to ten questions or short problems. The

requirement (e.g., a right-handed deck on the table, etc.) will be announced.

So long as you have a General Science background, you may be assigned.

The exam is on December 4, 12:00 PM. The exam will be given during the lecture period.

The first midterm exam will be given during the lecture period.

The exam will be given during the lecture period.

Exams

You are encouraged to work on the homework in groups. However, that does not mean that one
does the work and the others copy it.

Daily homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.

Homework assignments will be announced in class and on Blackboard. All problems and
questions related to the current lecture will be assigned.
<table>
<thead>
<tr>
<th>Week of</th>
<th>Chapters</th>
<th>Lecture Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 25</td>
<td>1-1-1-8</td>
<td>Introduction, Units</td>
</tr>
<tr>
<td></td>
<td>2-1-2-6, 2-8</td>
<td>Displacement, Velocity, Acceleration, Graphs, Kinematics in 1-D</td>
</tr>
<tr>
<td>Oct. 2</td>
<td>2-7</td>
<td>Freely Falling Objects</td>
</tr>
<tr>
<td></td>
<td>3-1-3-6</td>
<td>Vectors and Scalars, Vector Components, Kinematics in 2-D</td>
</tr>
<tr>
<td>Oct. 9</td>
<td>3-7-3-8</td>
<td>Projectile Motion</td>
</tr>
<tr>
<td></td>
<td>4-1-4-6, 7-1</td>
<td>Force, Mass, Newton's Laws of Motion</td>
</tr>
<tr>
<td>Oct. 16</td>
<td>4-7-4-9</td>
<td>Free Body Diagrams, Applications of Newton's Laws</td>
</tr>
<tr>
<td></td>
<td>5-1-5-2</td>
<td>Circular Motion</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MIDTERM EXAM I</strong>, Wednesday, Oct. 18</td>
</tr>
<tr>
<td>Oct. 23</td>
<td>5-3-5-10</td>
<td>Circular Motion, Gravity</td>
</tr>
<tr>
<td></td>
<td>6-1-6-3</td>
<td>Work, Kinetic Energy</td>
</tr>
<tr>
<td>Oct. 30</td>
<td>6-4-6-10,</td>
<td>Potential Energy, Conservation of Energy, Power Impulse, Momentum</td>
</tr>
<tr>
<td></td>
<td>7-1-7-3</td>
<td></td>
</tr>
<tr>
<td>Nov. 6</td>
<td>7-4-7-10,</td>
<td>Collisions, Center of Mass</td>
</tr>
<tr>
<td></td>
<td>8-1-8-3</td>
<td>Rotational Kinematics</td>
</tr>
<tr>
<td>Nov. 13</td>
<td>8-4-8-9</td>
<td>Rotational Dynamics, Rotational Kinetic Energy</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MIDTERM EXAM II</strong>, Wednesday, Nov. 15</td>
</tr>
<tr>
<td>Nov. 20</td>
<td>9-1-9-4</td>
<td>Statics, Conditions of Equilibrium</td>
</tr>
<tr>
<td></td>
<td>10-1-10-6</td>
<td>Fluids, Pressure</td>
</tr>
<tr>
<td>Nov. 27</td>
<td>10-7-10-10</td>
<td>Archimedes' Principle, Bernoulli's Principle, Review</td>
</tr>
<tr>
<td>Dec. 4</td>
<td>1-10</td>
<td><strong>FINAL EXAM</strong> Tuesday, Dec. 5, 6:00–8:00 PM, Location to be announced.</td>
</tr>
</tbody>
</table>