

**PHYSICAL SCIENCE 103 – GENERAL INFORMATION**  
**LECTURE SEC. 002 – LAB SEC. 05, 06**  
**SPRING 2004 – DR. RIVERS**

**WELCOME** to Physical Sciences 103! In this course we will conduct investigations into the nature of the physical world. Our investigations will be *scientific* in nature; that is, they will be based on *experiments*. This is a lab-driven course and your performance in the laboratory is a crucial part of your work here. As science students you will also be expected to be able to extend what you have done in lab to new, possibly unfamiliar topics. In other words, it is not enough to know what you have done, you must know why. As such we will concentrate on critical thinking rather than the memorization of facts or procedures.

**CONTACT INFO FOR THIS COURSE:**

SECTION	M, W at	PROFESSOR	EMAIL	OFFICE	PHONE	OFFICE HOURS
Lecture 002	4:00- <del>4:30</del> 5:20	Dr. Rivers	sbrivers@ric.edu	CS 102	456-8786	M, W 3:00 – 3:50; Tu, Th 11:00 – 11:30; and by appointment
Lab 05 Lab 06	5:30-6:50 7:00-8:20	Dr. Murakami	bmurakami@ric.edu	CS 207	456-9644	

The Departmental Secretary is Sherry Shroyer, CS 101, sshroyer@ric.edu (456-8049).

**ATTENDANCE:** In lecture we will introduce new material as well as review the most recent lab work. Every student is expected to attend class regularly. Therefore, excessive absences from class will affect your grade. Missing class will not excuse you from work due that day or from your responsibility for knowing what happened in class (including material covered or announcements). If you are going miss class or lab for a good reason, inform the appropriate instructor *beforehand*. Otherwise, it is almost impossible to excuse you and still be consistent with the rules as applied to the rest of the students.

**TEXTS** *Conceptual Physical Science*, Hewitt, Suchocki & Hewitt, Custom Edition for RIC  
*Introductory Physical Science Laboratory Manual*

**WEBSITE** PSCI 103 has its own website: [www.ric.edu/psci103](http://www.ric.edu/psci103) Here you can find basic course information as well as solution sets for prelab and postlab exercises (see below) and practice problems for many of the topics covered in the course.

**HELP OUTSIDE OF CLASS** There are several ways to get help with course material outside of class. If you would like to talk with me, I have office hours from 3:00 to 3:50, Monday and Wednesday and 11:00 to 11:30 on Tuesday and Thursday. If these times are not good for you, you can also make an appointment. Dr. Murakami, your lab instructor, will also have office hours. In addition, there is a tutoring program in the Physical Sciences department. Upper-level physics and chemistry students are available in CS 126 five days a week to help you. A schedule will be posted on the CS 126 door soon after the start of the semester.

**Lecture:** Attached is a calendar of events for the semester. It is extremely important that you read the text assignment BEFORE the topic is presented in class. After the lecture, reread the text and try all of the questions and exercises. If you have any difficulties with these, ask me at the BEGINNING of the next class.

**Pre-laboratory Assignments:** The content for each laboratory experiment will contain material obtained from the laboratory handout and selected pages from the text. Follow-up questions and problems will be posted on the course webpage. While these questions and problems will **not** be collected, they are integral to understanding the laboratory and content presented during lecture. Answers to selected problems and exercises will be posted on the course website.

**Laboratory:** You are expected to attend all class meetings. Consult with your laboratory instructor BEFORE you miss a class session. The laboratory is where you will obtain hands-on experience in the concepts discussed in class. There are no make-up laboratory sessions.

**Assessments:**

- **Lecture Exams & Laboratory Practicals:** Lecture exams will have multiple choice questions, short essay questions, and mathematical calculations from the selected readings. Some questions will be remarkably similar to questions assigned from the text or from the post-lab sections. Laboratory practicals include data collection, observations, and analysis of a laboratory investigation reflecting the skills and content investigated in the laboratory for that portion of the course.
- **Lecture Quizzes** will cover the material presented since the previous lecture quiz.
- **Take Home Experiments:** There will be several take-home experiments using the measurement kit. These have been designed to reinforce the laboratory techniques and methods of data analysis. None of the experiments requires an elaborate setup or difficult to obtain materials. The experiments are meant to be short. Collaboration is encouraged, however, blatant copying of another student's work will result in a zero for that assignment.

▶ *No make-up assessments will be offered.*

▶ *Students who did not attend/complete all laboratories within a given assessment period will conduct the laboratory practical portion individually.*

**Grading:**

5 Lecture Exams @ 70 points each	350
5 Laboratory Practicals @ 70 points each	350
7 Lecture Quizzes @ 20 points each	140
8 Take Home Experiments @ 20 points each	160

Grades will be assigned on a 90%, 80%, 70% & 60% scale.

**AND NOW, SOME ANNOUNCEMENTS I HAD HOPED NEVER TO MAKE IN A SYLLABUS**

Talking in Class I don't mind if you make occasional comments to your neighbor, but if you are going to carry on a conversation, just leave. No matter what you think, you are not following along with the lecture while you chat. And you are disturbing those around you. I used to never worry about this, but in lecture-hall courses like this one I get complaints from students who can't hear me because the same group of people near them is always talking.

Cell Phones Turn off your ringer before coming to class. With 75 to 100 students in class, several will get calls during each hour lecture. Like excessive talking, this is too much of a disturbance to the rest of the class.

Cheating First a little excerpt from the *Rhode Island College Student Handbook*:

**Policy on Academic Dishonesty**

Students who willfully violate the principles of academic honesty (e.g., through cheating on examinations or assignments, plagiarism ..., altering or changing records, etc.), are subject to consequences ranging from an effect on their grade to academic probation or expulsion depending on the seriousness of the act.

I put that here because a lot of students in this course seem to not know how serious this is. Like excessive talking and cell phones, I have received numerous complaints about this from the students who are trying to get their money's worth from this course. So if I ask you to change seats during an exam you don't necessarily have to be alarmed. It might just mean a person near you was straining their eyes to see your paper. And if I see you showing your quiz or test to your neighbor, I'll probably let you go ahead, but I'll make a photocopy of your papers before I hand them back.

Mon	Tue	Wed	Thu
January 19 MLK Day	20 No Lab	21 Feel the Pressure Equivalent Ratios	22 Feel the Pressure Equivalent Ratios
26 Density: Mass & Volume TH #1: Tire Pressure	27 Density: Mass & Volume TH #1: Tire Pressure	28 Large & Small Numbers Lecture Quiz #1	29 Large & Small Numbers Lecture Quiz #1
February 2 Speed & Acceleration TH #2: Density of a Penny	3 Speed & Acceleration TH #2: Density of a Penny	4 Newton's Laws Lecture Quiz #2	5 Newton's Laws Lecture Quiz #2
9 Attachment #1	10 Attachment #1	11 Work, Power & Energy	12 Work, Power & Energy
16 Specific Heat TH #3: Soup Can Kinetics	17 Specific Heat TH #3: Soup Can Kinetics	18 Convection, Conduction & Radiation Lecture Quiz #3	19 Convection, Conduction & Radiation Lecture Quiz #3
23 Keep the Heat TH #4: Cooling Curves	24 Keep the Heat TH #4: Cooling Curves	25 Waves Lecture Quiz #4	26 Waves Lecture Quiz #4
March 2 Attachment #2	3 Attachment #2	4 Sound	5 Sound
9	10	11	12
16 Seismic Waves	17 Seismic Waves	18 Simple Circuits TH #5: Wave in a Bottle	19 Simple Circuits TH #5: Wave in a Bottle
23 Ohm's Law Lecture Quiz #5	24 Ohm's Law Lecture Quiz #5	25 Quantitative Analysis	26 Quantitative Analysis
30 Attachment #3	31 Attachment #3	April 1 Properties of Seawater	2 Properties of Seawater
6 Chemical Composition Lecture Quiz #6	7 Chemical Composition Lecture Quiz #6	8 Acids & Bases TH #6: Forensic Chemistry	9 Acids & Bases TH #6: Forensic Chemistry
13 Where in the World	14 Where in the World	15 Attachment #4	16 Attachment #4
20 Seasons & Phases	21 Seasons & Phases	22 Constellations TH #7: Sun's Diameter	23 Constellations TH #7: Sun's Diameter
27 How Far, Bright, Hot, etc Lecture Quiz #7	28 How Far, Bright, Hot, etc Lecture Quiz #7	29 Lunar Features TH #8: Solar Luminosity	30 Lunar Features TH #8: Solar Luminosity
May 4 No Class	Day of Final Exam Attachment #5		

Lecture Assessments: 5 @ 70 pts  
Lecture Quizzes: 7 @ 20 pts

Lab Assessments: 5 @ 70 pts  
Take Home Experiments: 8 @ 20 pts