

## PHYS 103 Elementary Astronomy

FALL 2007

**Instructor:** Dr. Robert H. Gowdy, OLVPHS 2011, Tel: 828-1821, email: rhgowdy@vcu.edu.

**Class Schedule:** T 7:00pm-9:40pm TEMPL 1164; Periods: 1. 7:00-8:15; 2. 8:25-9:40

**Office hours:** MW 11am-5pm R 1pm-5pm F 11am-1pm

**Optional Textbook:** *Astronomy: A Beginners Guide...* (3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> Ed.) by Chaisson/McMillan.

**World Wide Web Page** The course will be taught from notes on the World Wide Web. From the VCU home page (<http://www.vcu.edu>), follow the links:

Faculty → Faculty/Staff Web Pages → Robert H. Gowdy → P103
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To go directly to the primary site, use the URL: [www.people.vcu.edu/~rgowdy/astro](http://www.people.vcu.edu/~rgowdy/astro)

**Material:** Chapters P; 1-18 in textbook. Modules 1-22, 40-57 in notes on the web.

**Projects:** Ten percent of your course grade will be based on an observation project report that must be submitted by the October 30 meeting with optional revisions due on November 27.

For project ideas and other details, consult the list of *Possible Observing Projects*.

**Exams:** Each hour exam is approximately 60 multiple choice questions with questions on each module covered. The exams will be given in class on the following dates :

Sep 25	Lecture Weeks	1,2,3,4
Oct 23	Lecture Weeks	5,6,7,8
Nov 20	Lecture Weeks	9,10,11

The **final exam** is comprehensive and consists of approximately 120 multiple choice questions with at least one question on each module covered.

The final will be given on **Tuesday, December 11, from 7:00 PM. to 9:40 PM in TEMPL 1164.**

**You must take the final exam!**

**Quizzes:** The questions in the notes will be used to give quizzes during most lectures. After a major point is covered or reviewed, a question about that point will be displayed and you will be asked to indicate your answer on a remote keypad. Those keypads may be purchased at the VCU Bookstore. The CPS enrollment codes needed to activate them may be purchased online (using a credit card) or you may buy one for cash at the Bookstore. Use the "Tools" | "CPS Connection" link on our Blackboard website to register your keypad for use in this course.

**Forum Participation:** An on-line discussion forum, the **Astronomy Forum**, is available from the course web page. Each contribution to the forum, whether a question or an answer, whether right or wrong, adds seven points to the sum of all your quiz grades. Since a perfect quiz adds 100 points, you need about 15 contributions to make up for missing an entire class. You can make these contributions at any time, but note the following restrictions:

- Dumping large numbers of contributions onto the forum all at once is not allowed because it makes give-and-take discussions impossible. Only your first 10 contributions will be counted for credit on any one day.
- Contributions made after midnight on December 4 will not be counted.
- You may use forum contributions to get your overall quiz average up to 100%, however you cannot go over 100%.
- Contributions will be deleted (and thus not counted) if they are duplicates, plagiarized, on the Frequently Asked Questions List, or fail to address a question in specific terms.

**Grading:** Each exam and quiz has a maximum score of 100. Compute your final score as follows:

Total the three highest of your four exam scores (three hour exams and a final).	Multiply by 0.45
Total all of your quiz scores and forum points and divide by the number of quizzes.	Multiply by 0.15
Average your project score and revision score (if any)	Multiply by 0.10
Final Exam Score	Multiply by 0.30

Add up the results to get your overall score.

Your score determines your letter grade: A=90.0-100.0, B=80.0-89.9, C=69.5-79.9, D=59.5-69.4

**Make-up Policy:** If you know that you cannot take an exam on the scheduled date, arrange to take a make-up **before** the scheduled date. **Makeup exams will not ordinarily be given after the scheduled exam dates.**

Makeup final exams will be given only in conjunction with requests for grades of incomplete.

**In-class quizzes may not be made up** but you can use participation in the Astronomy Forum to compensate for missing quiz grades. Some form of class participation, either real or virtual, is a requirement of this course.

#### Tentative Schedule of Topics

Week/ Place	Date	Modules	Topics
1/VCU	Aug 28	1,2	Sky Motions, Moon Phases
2/VCU	Sep 04	3-5	Science, Ancient Astronomy, Galileo
3/VCU	Sep 11	6-9	Kepler, Newtonian Mechanics, Waves
4/VCU	Sep 18	10-13	Physics of Light, Atomic Spectra, Telescopes
5/VCU	Sep 25	14	Solar System Overview; Exam 1
6/VCU	Oct 02	15-18	Earth Impacts, Formation of the Solar System
7/VCU	Oct 09	19-22	The Earth-Moon System
8/VCU	Oct 16	40-43	The Sun, Stars
9/VCU	Oct 23	44,45	Spectral Types, Magnitudes, Exam2,
10/VCU	Oct 30	46-49	the HR Diagram, Star Formation, Project Due Last class before drop date!
11/SMV?	Nov 06	-	Planetarium show, Sky Motions, Dark Matter, etc.
12/VCU	Nov 13	50-52	Neutron Stars, Black Holes, The Milky Way
13/VCU	Nov 20	53,54	Milky Way, Exam 3
14/VCU	Nov 27	55-57	Galaxies, Cosmology, Project revisions due, Teaching Evaluation.
15/VCU	Dec 04		Review (Note that evening classes meet all week.)
Final	Dec 11		All Topics Covered

#### Accommodations for the Disabled

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 require Virginia Commonwealth University to provide an ‘academic adjustment’ and/or a ‘reasonable accommodation’ to any individual who advises us of a physical or mental disability. If you have a physical or mental limitation that requires an academic adjustment or an accommodation, please arrange a meeting with me at your earliest convenience. Additionally, if your coursework requires you to work in a lab environment, you should advise the instructor or department chairperson of any concerns you may have regarding safety issues related to your limitation(s).

Note: Please contact the appropriate Coordinator of Services for Students with Disabilities to obtain an official memo detailing the academic adjustments or accommodations which you need.

## Honor Code

You are required to be familiar with and follow the VCU Honor Code. Should I become convinced that a violation (such as cheating) has occurred, I will not give a warning or ask for an explanation. Instead, I will file a formal charge to the Office of Judicial Affairs & Academic Integrity.

You are encouraged to give and receive help on projects and quizzes but the project reports and quiz answers should be your own. **Duplicate project reports and responding with another student's CPS keypad will be regarded as honor code violations.**

### What to Know and Do To Be Prepared for Emergencies at VCU

1. Sign up to receive VCU text messaging alerts (<http://www.vcu.edu/alert/notify>). Keep your information up-to-date.
2. Know the safe evacuation route from each of your classrooms. Emergency evacuation routes are posted in on-campus classrooms.
3. Listen for and follow instructions from VCU or other designated authorities.
4. Know where to go for additional emergency information (<http://www.vcu.edu/alert>).
5. Know the emergency phone number for the VCU Police (828-1234). Report suspicious activities and objects.

### Student Conduct

Students should familiarize themselves with the guidelines for appropriate student conduct as outlined in the VCU 2006-2007 Resource Guide. During class it is expected that inappropriate electronic devices (cell phones, pagers, etc.) are turned off.