

COLLEGE OF CHARLESTON

HONS 160–HONORS ASTRONOMY II

Instructor: T. R. Richardson

Spring 2018
Harbor Walk West, Room 110
Tuesday, Thursday 11:20 AM–12:35 PM

Lecture Syllabus

Honors 160 HONORS ASTRONOMY II

Contact Information:

T. R. Richardson:
Office: JC Long room 211
My Lab: HWWE 108

Office Phone: (843) 953-8071
Cell Phone: (843) 670-7878
email: richardsont@cofc.edu

Office Hours:

Check the web link on the right for the latest listing of my office hours. http://richardsont.people.cofc.edu/trr_hours.html

Contacting me:

Contacting me is easy. Email if it is not complicated or time sensitive (i. e. something in the next 36 to 48 hours. Otherwise use the phone. These days it is best to use my cell phone. Because of classes and meetings it may be turned off. If I don't answer, text me with your phone number or message. My cell phone for school will not take voice messages, even if it seems to, so please don't try to leave a message. I will do my best to call you back but I am never "it" when it comes to phone tag. Also don't text me without trying to call first unless you are unable to talk at that time. I choose not to text back and forth when a call will be simpler.

Pre-requisite/Co-requisite:

This course is the second in a two-semester survey of contemporary astronomy. The course is designed to accompany HONS 160L and that lab course is a pre-requisite or co-requisite to this lecture.

Goals:

In the instructor's view this course has a number of goals. They are to provide the student with:

1. A broad understanding of the nature, scope, and evolution of the Universe, and where the Earth and Solar System fit in.
2. An understanding of a few crucial astronomical quantities, together with some knowledge of appropriate physical laws.
3. An understanding that physical laws and processes are universal.
4. An understanding that the world is knowable, and that we are coming to know it better each year through observations, experiments, and theory.
5. An understanding of the types, roles, and degrees of uncertainty in science.
6. An understanding of the evolution of physical systems.
7. Some knowledge of related subjects such as mathematics and some useful "tools" from those related subjects.
8. One last objective is to have a reasonably good time accomplishing the previous ones.

General Education Objectives and Learning Outcomes:

At the end of the syllabus are the College general education objectives and learning outcomes as well as the departmental learning outcomes for this course. Expect me to direct your attention to specific ones as the course progresses through its topics. You will be tested on the general education learning outcomes at the end of the second semester of the this two-course sequence.

Textbooks:

Our textbook, *The Cosmic Perspective*, by Bennett, Donahue, Schneider and Voit, 8th edition is a good one. I know the lead author personally and he has come to the College to talk with our students.

Attendance:

Roll will be taken. The wise student will attend all classes since lecture is intended to supplement rather than duplicate the reading of the textbook. Be there or be left out.

Tests:

There will be four major tests and a major writing assignment. The lowest test grade will be dropped in the computation of the final grade. If a student is absent from a test, that absence is normally treated as that student's dropped grade depending on the circumstances.

Little Grades:

There will be reading quizzes, in-class graded activities and homework. The reading quizzes will allow the use of your written notes both from lecture and from your reading at home. All of these activities are averaged together and constitute a student's Little Grade average. Two (or more at the instructor's discretion) Little Grades will be dropped in the computation of the Little Grade average. Make-ups are not available for these Little Grade activities since the instructor expects a student to attend all classes. The dropped grades are intended to correct for illness and unplanned absences.

Honors 160 HONORS ASTRONOMY II

Makeup Assignments:

It is the policy of this class to allow makeup work when the request for makeup is accompanied a signed and notarized endorsement by the sitting president of the Republic of Palau. Otherwise such requests are considered on a case-by-case basis and the decision depends on the timing and reason for the request. On assignments where a grade can be dropped, that may be the best option although there are often other possibilities to be considered.

Writing Assignments:

There will be one or more major writing assignments. These assignments are designed to polish your ability to articulate in writing concepts and issues in the field of science. Information about this assignment will be provided at a later time.

Grading:

There will be a final exam. It will be comprehensive. The final grade in this course has the following components:

- Major tests 42% (14% each)
- Writing assignment 16%
- Little grade average 20%
- Final exam 22%

Grading Scale:

A	92.5 – 100	B	82.5 – 87.4	C	72.5 – 77.4	D	62.5 – 67.4
A-	89.5 – 92.4	B-	79.5 – 82.4	C-	69.5 – 72.4	D-	59.5 – 62.4
B+	87.5 – 89.4	C+	77.5 – 79.4	D+	67.5 – 69.4	F	0.0 – 59.4

Important Dates:

If you keep a calendar, then you will want to put these dates on it now. If you don't keep a calendar, consider getting one and using it to stay organized.

- Tests see the online schedule
- Writing Assignment Tue, Mar. 6
- Final Exam Tue, May. 1 8 – 11 AM, in our regular classroom

Disabilities and SNAP:

This class is SNAP friendly. If your situation comes under the guidelines of the programs in the SNAP office, please come to my office so we can talk about how to handle your particular situation. Sooner is better than later if we have to arrange accommodations.

The College Honor Code:

Every society has its rules that help that society to function. The College Honor Code contains some of the rules all of us are expected to follow for the years we are together here. Every individual has rules of their own to guide their life. Make your rules consistent with the College Honor Code and trust that I have done the same. Please visit the College Student Handbook online at <http://www.cofc.edu/generaldocuments/handbook.pdf> for details about the Honors Code and see my summary of the Honor Code in our classroom at http://richardsont.people.cofc.edu/shared_folder/honor_code.pdf.

Online Resources:

My webpage: <http://richardsont.people.cofc.edu/>

Course webpage: http://richardsont.people.cofc.edu/16a_h160_lec_folder/00_h160_schedule_s18.html

The course webpage is the source for course comments and links to the course schedule and supplemental material. You can access the link through your account on OAKS. However you can access all the material for this course without having to login by using the link above or the link on my homepage found on the college people server.

General Education Natural Science Learning Outcomes:

The following general education learning outcomes will be assessed in the lab section of this course where you will:

1. Apply physical/natural principles to analyze and solve problems.
2. Demonstrate an understanding of the impact that science has on society.

Honors Astronomy Course Learning Outcomes:

To successfully complete this course the student is expected to demonstrate competence (through quizzes and tests) by being able to:

1. Distinguish the nature and significance of the following: instruments used in astronomy, stars (binary, variable), star clusters, interstellar matter, galaxies and cosmology.

2. Demonstrate how the measurement of light is used to interpret physical characteristics of the universe.
3. Recognize the origins of astronomical objects.
4. Apply physical laws to reveal the nature of astrophysical phenomena.

Some Study Tips:

1. Have a special place to study.
2. Take breaks for 5–10 minutes each hour.
3. Switch subjects every hour or at some interval that works for you.
4. Review your class notes right after lecture, before the next lecture and every day until the test.
5. Get some vigorous exercise every day.
6. Eat your vegetables and stop eating junk.