

# **ASTR 1303 INTRODUCTION TO THE STARS AND GALAXIES**

**Credit: 3 (3 lecture)**

**Spring 2019**

## **Instructor Information**

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**Web Site:** Eagle Online learning system

## **Course Description:**

An introduction to astronomy, emphasizing the study of stars and galaxies. This is a Core Curriculum Course. This course is 100% online. Campus visits ARE NOT REQUIRED.

## **Prerequisites**

MATH 1314 or equivalent. Contact the instructor should you have any questions.

**If you have already completed astronomy course ASTR 1403, then taking ASTR 1303 will NOT count in your degree plan. If you complete ASTR 1303 and ASTR 1403, then only one of these courses can be counted in your degree plan.**

## **Course Goals**

- To learn about scientific methods and to achieve an understanding of basic concepts of astronomy based on reading assignments, lectures, computer based activities, and web resources.
- Know basic facts in astronomy, and have sufficiently developed an ability to apply the logic of scientific inquiry, to be able to critically read an article on astronomy in the newspapers or magazines.
- Use astronomical concepts and critical thinking skills to describe our modern understanding of stars, galaxies, and cosmology.

## **Textbook:**

TBA

## **Topics Covered:**

The Scale of the Cosmos.  
The Sky.  
The Origin of Modern Astronomy.  
Newton, Einstein, and Gravity.  
Atoms and Starlight.  
The Sun--Our Star.  
The Family of Stars.  
The Interstellar Medium.  
The Formation of Stars.  
Stellar Evolution.  
The Deaths of Stars.  
Neutron Stars  
The Milky Way Galaxy.  
Galaxies.  
Cosmology in the 21st Century.  
Life on Other Worlds.

### **TASP Requirements**

Students are expected to have taken the TASP exam before registration. Contact any HCCS counselor for information.

### **Disabilities**

Any student with documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the appropriate Disability Support Service Counselor at the beginning of each semester. Faculty is authorized to provide only the accommodations requested by the Disability Support Services Office.

Students who are requesting special testing accommodations must first contact the appropriate Disability Support Service Counselor for assistance. Please contact the Distance Education Counselor, Angela Foote at 713-718-7014 or [angela.foote@hccs.edu](mailto:angela.foote@hccs.edu) in order to be referred to the appropriate Disability Support Service Counselor.

Students who require testing accommodations need to schedule an appointment for testing to ensure that staff will be available for proctoring and to arrange for any adaptive equipment that may be required. Students should contact their distance education instructor's "Instructional Support Specialist" the week prior to each of their exams throughout the semester to confirm that the requested testing accommodations will be met. If you need assistance in determining your instructor's Instructional Support Specialist, please contact your instructor or the Distance Education Counselor.

### **Academic Responsibility**

It is the student's responsibility to be aware of HCCS conduct and academic conduct requirements. It is the student's responsibility to withdraw from the course by the appropriate date as listed in the schedule. Please read the Student Handbook. Any student using unauthorized material on a test is subject to administrative withdrawal from the course and/or a grade of zero for the respective test or report.

If any student is caught cheating on a test or plagiarizing papers, the student will receive a grade of zero on that test or assignment. A second infraction will result in a grade of "F" for the

semester. Academic dishonesty includes, but is not limited to, unauthorized collusion on tests or papers, copying directly from another person's work but passing it off as your own, or using unauthorized "cheat sheets, notes, or other forms of information during a test. Review your obligations in the HCC Student Handbook, page 28.

### **Internet-based online activities**

The online assignments will include visiting NASA web site, Hubble Space Telescope and other astronomy-related web sites and working with real astronomical photos and images. Completing the online activities in this class will give you general idea of how astronomers study the Universe in the 21<sup>st</sup> century. This is not a mathematics-based course, although some simple arithmetic will be used. Whenever required, the mathematics used will be explained thoroughly.

### **Testing**

There will be four exams and a comprehensive final exam. All exams will be taken online. The final exam will also be taken online during the regular distance education final exam period. The exams are timed.

Exams will consist of multiple-choice questions only. **The lowest grade for one of the four exams (excluding the final exam) will be dropped.**

Final Exam is comprehensive, multiple-choice format and mandatory.

You will be allowed to use your textbooks and notes for the exams (except for the final exam), but you must read and make notes in your books before the exam - there will not be enough time to look up each answer if you are not already very familiar with the materials. Tests in this course DO NOT include any questions that would require mathematical calculations. All questions on the tests are conceptual and do not require use of calculator.

### **Grade Calculation**

Four Exams	40%
Internet-based online activities	40%
Final Exam	20%

**Grading Scale:** 90-100 A; 80-89 B; 70-79 C; 60-69 D; <60 F.

### **Internet Course**

To participate in a Distance Education computer-based course, you should possess a basic level of computer skills. Please visit Distance Education web site at <http://distance.hccs.edu/> to find out more about taking online classes. The Distance Education Student Handbook posted online contains policies and procedures unique to the DE student. Students should have reviewed the handbook as part of the mandatory orientation. It is the student's responsibility to be familiar with the handbook's contents. The handbook contains valuable information, answers, and resources, such as DE contacts, policies and procedures (how to drop, attendance requirements, etc.), student services (ADA, financial aid, degree planning, etc.), course information, testing procedures, technical support, and academic calendars. Refer to the DE Student Handbook by visiting this link: <http://de.hccs.edu/de/de-student-handbook>

After you have completed your Online Orientation and on the official starting date of your class:

- Click on "Go to Class" under our Course Access Menu from our homepage and select the current semester.
- On the following page you can select the academic department of your course
- This brings you to a listing of courses in alphabetical order by rubric. Locate your section and click on the [Go to Classroom](#) link.
- After clicking the Go to Classroom link, you will be taken to the login screen for your class. Your class will be delivered via our learning management system, Eagle Online.
- Follow the instructions for first time login to your course.
- Type your user name and password, and click OK. Your Username is the same as your User ID, which starts with a capital W.
- Your initial default password is the word *distance*.
- You will be prompted to change your password if you are logging in for the first time this semester. Remember your new password!
- After you have changed your password from distance for the first time, the learning management system will log you out.
- You will then need to log back in with your new password.

This Internet course will cover the same materials as the traditional in-class course. However, you do not have to attend lectures and we will communicate online. You will have to rely on yourself to complete the readings, study the materials, and work with online activities. This course assumes that you have basic computer skills, or a basic level of computer literacy.

You will be expected to check the web site at least two times a week. Be sure to keep up and check in often so that you do not miss any important information.