
Astronomy of Stars, Galaxies & Cosmology AST 102

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OFFICE HOURS (T-204)

Monday: 11.00 a.m. - 12.00 a.m.
Tuesday: 8.00 a.m. - 9.00 a.m. [online] & 11.00 a.m. - 12.00 p.m.
Wednesday: 11.15 a.m. - 12.15 p.m.
Thursday: 11.15 a.m. - 12.15 p.m.

REQUIRED TEXTBOOK: Stars and Galaxies. – Seeds
LAB MATERIALS: Astronomy through Practical Investigations – AST 102
OTHER MATERIAL: Scientific Calculator

COURSE OBJECTIVES:

Upon completion of this course, students will be able to do all of the following:

1. Make measurements using the metric system and perform simple forms of data analysis to enhance problem solving skills.
2. Understand the night sky by knowing major stars and constellations as well as tracking the motions of the sky, the Moon, and planets using a planisphere (star finder) and become familiar with the horizon coordinate system.
3. Understand the scientific method and how it applies to astronomy.
4. Know the different properties of light and how we use these properties to gather information.
5. Know the structure and surface features of the Sun and how the Sun affects life on Earth.
6. Trace the evolution of stars from birth to death, including the structure and characteristics of stars as they go through the different stages of their life cycles.
7. Know how stars are grouped together (star clusters and galaxies) and their properties.
8. Understand how astronomers believe the universe was created, how it has evolved over time, and what the possible (and most probable) fates of the universe are.
9. Have a clear understanding of the scale of the universe and our position within it.
10. Understand how our acquisition of information is limited by factors such as errors in our measurements and our position within the universe.
11. Have a sufficient understanding of astronomical phenomena in order to have an appreciation for recent developments in the field.

PROCEDURES FOR ACCOMPLISHING OBJECTIVES:

Course objectives will be achieved through classroom lecture/discussion, lab activities, and exams. Mastery of the MA07 prerequisite is essential to a successful course experience. If you have not studied algebra recently you must review the basics.

ATTENDANCE:

Because of the nature and amount of the material in this course, it is crucial that each student attend every lecture and laboratory session.

Each student is allowed two absences for the semester, and permits the instructor to withdraw or fail any student that exceeds the number of absences.

WITHDRAWAL POLICY:

Students who wish to withdraw, without academic penalty, must do so by October 21. Any student who hasn't withdrawn by this time will be required to finish out the semester, regardless of their grade.

Any student who wishes to withdraw but has not formally done so will be considered to still be in the class and a final grade will be administered.

It is the students' responsibility to complete the proper withdraw procedure, NOT the instructors!

GRADES:

The semester grade will be weighted in the following manner:

Lecture Exams = 30 %

Final Exam 15%

Planetarium Exams 10%

Homework 5%

Lab Coursework = 40%

A grading curve will not be applied to the final grades and extra-credit is not available.

EXAMS:

There will be four (4) lecture exams, a planetarium exam (given in two sections) and a cumulative final. The lower of the lecture exams will be discarded when calculating the final grade. The grades on the planetarium exam and the final will not be dropped when computing the final grade.

Make up exams will not be administered, without exception. If a student misses an exam, the grade will be entered as a zero.

LAB COURSEWORK:

Various forms of coursework will be assigned as part of the laboratory section of the class based on the lab exercises found in the Astronomy through Practical Investigations packet. These labs are to be worked on in groups containing no greater than 2 students. However, each student in a group should write up their laboratory exercise individually. Copying another student's work is strictly forbidden. Failure to hand in 3 or more lab reports will result in possible disciplinary action. Quizzes that cover the material in the labs will be administered for grades at the instructor's discretion.

All assigned work will be handed in exactly one week after it is set. Any work that is not handed in when requested, regardless of the reason, will not be accepted*.

*If a student knows that they will be absent from a class when an assignment is due, arrangements can be made to turn in the assignment as long as the instructor prior to the date of absence has granted the student permission.

CHEATING:

Suffolk County Community College has instituted the following policy regarding academic integrity, which can be found in the SCCC student handbook – "Any student who is caught cheating will be punished to the fullest extent of the college's cheating policy".