

COURSE SYLLABUS
PHYS 1403 – Stars and Galaxies

Credit Hours: 4
Spring 2018
Farrington Building, Room 105
9:00 – 9:50 MWF

Instructor: Dr. Joel W. Walker
Phone: (936) 294-4803
Main Physics Office: (936) 294-1601
Email: jwalker@shsu.edu

Office Location: Farrington, room 204 D

Office Hours: 1:15 -2:00 MWF or by appointment

Required Workbook: *Lecture Tutorials for Introductory Astronomy*, 2013 by E. Prather, T. Slater, J. Adams, G. Brissenden

Recommended Textbook: *Astronomy Today Vol II: Stars and Galaxies*, 8th or 9th edition, by Chaisson and McMillan (to supplement the in-class presentation)

Required Supplies: Pencils, Notebook, Scantron Forms (2 sided 50 question), calculator (use of calculator memory for note storage is STRICTLY forbidden), Turner Technologies Clicker (professor will provide details)

Course Description The study of the universe beyond the solar system. Topics include the nature of stars, stellar evolution, galaxies, quasars, cosmology, the universe as a whole, and theories about the origin and fate of the universe. Along the way, students will be introduced to tools astronomers use to determine such properties as temperatures, compositions, motions, masses, and evolution of astronomical objects. Credit 4. ***Prerequisite: None.***

Course Goals: To develop useful insight into each of the following subjects:

- Characteristics of a scientific understanding of nature
- Decoding light to determine physical properties of objects
- Apparent and absolute magnitudes
- Determining cosmic distances
- Historical development of the laws governing the universe
- Formation and evolution of stars
- Evolution of stellar systems and galaxies
- The origin, expansion, and fate of the universe

Laboratory:	PHYS 1403 combines a 3-credit lecture course with a 1-credit laboratory. You MUST take both simultaneously for credit. Labs meet for two hours each week, beginning the week of January 29, and also include a mandatory observatory component. Your lab TA will report your lab grade to me, and it will represent 25% of your combined final grade for the 4-credits of 1403. See the laboratory syllabus for additional details.
Lab TAs:	The lab instructors for PHYS 1403 hold weekly office hours in 306 Farrington. Their hours will be announced in class. If you have lab-specific questions, it would be best for you to attend the office hours of your lab instructor, but if you have general lab questions, or questions about the lecture, then you are encouraged to attend the office hours of any of the lab instructors. They are former students who have successfully completed this course. They are very knowledgeable about the material and can explain it to you from a student perspective. They are a valuable resource.
Homework:	Practice in problem solving and critical thinking related to the subject matter will be provided in the form of homework. There will also be a component of in-class and group work that contributes to this grade.
Exams:	Three major examinations will be given during the semester in addition to a comprehensive final. If a special situation exists which would cause you to miss an exam, this MUST be made known to me prior to the date of the test if possible. Otherwise, a makeup will be allowed in only the MOST EXCEPTIONAL situations, evaluated on a case-to-case basis.
Grading Plan:	Laboratory is 25%. Homework and in-class work is 15%. The final and three semester exams will each be counted as 15% of the course grade, for a total of 100%. Final letter grades are assigned in 10 point intervals, e.g. "A" is 90% to 100%, etc.
Class Rules:	<p>All class members are expected to respect the proceedings of this course, and the learning environment of their fellow students. This principle has several practical implications, some of which are below:</p> <ol style="list-style-type: none"> 1) Do not cheat. Violators are subject to dismissal on a 1st offence. 2) Regular punctual attendance is expected of all class members. 3) There is to be absolutely no use of Cellular phones in the classroom, for either voice or text communication. Parents of young children and professionals who may reasonably expect some chance of an emergency contact should silence their phones, and discreetly excuse themselves if it becomes necessary to take a call. All others should turn off or ignore their phones entirely.

Email Guidelines: Email communication with your instructor should be made in a professional manner. Instant-Message style notes are not acceptable in a business or academic setting. All email should employ the standard features listed following.

- 1) Include your name, course number and class meeting time.
- 2) Include a proper salutation, body and closing.
- 3) Make a reasonable attempt at correct grammar, capitalization, punctuation and spelling.

University Policies

The following are university-wide official policies which apply to this course. Additional details are available at the web address: <http://www.shsu.edu/syllabus/>

Academic Dishonesty: Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom.

Classroom Rules of Conduct: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students are to treat faculty and students with respect. Students are to turn off all cell phones while in the classroom. Under no circumstances are cell phones or any electronic devices to be used or seen during times of examination. Students may tape record lectures provided they do not disturb other students in the process.

Student Absences on Religious Holy Days: Students are allowed to miss class and other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Students remain responsible for all work.

Students with Disabilities Policy: It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should visit with the Office of Services for Students with Disabilities located in the Counseling Center.

Visitors in the Classroom: Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

PHYS 1403 Office Hours

	Monday	Tuesday	Wednesday	Thursday	Friday
10:00					
11:00		Sandy Sandy		Tyler	
12:00	Rodrigo Rodrigo	Ryan Ryan	Jenifer	Tyler Sara	
1:00	Rodrigo/Deionte Rodrigo/Deionte	Ryan Ryan	Jenifer/Pathik Pathik	Sara	
2:00	Wyatt Wyatt	Jacob Jacob		Jenifer	
3:00		Sloan Jill/Sloan		Jenifer Jill	
4:00		Jill		Jill	

Lab Meeting Times and TAs:

M 10:00am - Deionte	W 10:00am - Ryan
M 2:00pm - Wyatt	W 4:00pm - Ryan
M 4:00pm - Pathik	Th 12:30pm - Tyler
M 6:00pm - Sloan	Th 4:30pm - Jill
T 12:30pm - Sara	F 12:00pm - Jenifer
T 4:30pm - Jill	F 2:00pm - Jenifer