Eastfield College
STEM Division

Stars and Galaxies, PHYS1403.41446/91404

Fall 2015
Online Scholar-Mester Course

Instructor: Dr. Kendra L Wallis, Ph.D.
Contact Information:
Office: C341 972-860-7676  kwallis@dccc.edu
Office Hours: MWF 9:00 am – 10:00 am; Wed in Science Corner
M 2:30 pm – 3:30 pm
TR 11:00 am – 12:00 pm

Prerequisite:
DREA 0093 or English as a Second Language (ESOL) 0044 or have met the Texas Success Initiative (TSI) standard in Reading.

Course Description:
Introduction to the properties of stars, stellar evolution, black holes, galaxies and current cosmological ideas. Emphasis is on the application of scientific principles and explanation of phenomena in the universe. The laboratory includes outdoor viewing sessions and the use of spectra. (3 Lec, 3 Lab)

Coordinating Board Academic Approval Number 4002015103

Textbooks and Other Course Materials:
Computer with internet access, scientific calculator, graph paper, ruler

Student Learning Outcomes (SLO’s)
Upon successful completion of this course, students will:

- Explain the daily and annual motions that occur in the sky.
- Relate the contributions of astronomers through the centuries and describe the methods used by them to explain their observations.
- Apply the principles of science to describe and explain various astronomical phenomena.
• Describe the basic features of the Sun and explain how it produces energy.
• List the different stages of stellar evolution and the properties of stars during their life cycles.
• Distinguish between different types of galaxies and explain current views on their formation.
• Discuss current cosmological ideas regarding the structure and formation of the universe.
• Perform lab experiments and exercises which illustrate the concepts listed above.
• View the night sky, identify the brightest stars and constellations, and observe various objects through the telescope, to personally experience the marvels of the universe.

**Laboratory Student Learning Outcomes (SLO’s)**

In addition to the SLO’s for the lecture portion of the course, upon successful completion of this lab, students will:

• Demonstrate techniques to set up and perform experiments, collect data from those experiments, and formulate conclusions from an experiment.
• Record experimental work completely and accurately in laboratory notebooks, and communicate experimental results clearly in written reports.

**ASSIGNMENTS:**

1. Homework will be assigned and submitted online through Mastering Astronomy. If you buy the textbook without the access card to Mastering Astronomy, you can purchase it separately [http://www.pearsonmylabandmastering.com/northamerica/masteringastronomy/](http://www.pearsonmylabandmastering.com/northamerica/masteringastronomy/)

2. Laboratory reports for each experiment performed are due according to the online schedule. Written materials are posted online on eCampus. Students should print and complete each assignment according to the instructions given. Submit the required prelab, answer sheets, and documentation through eCampus by the required deadline.

3. Term Assignment: All students are required to complete an end-of-term assignment for 5% of your course grade. Details of the assignment are posted on eCampus.

**Evaluation Procedures:**

The course grade is based on your performance on unit exams, assigned homework, completed laboratory work, and a term assignment. No large scale curves will be applied and no extra credit is granted. All work will be graded on the basis of 100 points per activity with the final course grade calculated using the following formula:
**COURSE GRADE:**

Course grade = 0.60(exam avg.) + 0.25(lab avg.) + 0.10(homework) + 0.05(term assignment)

Letter grades: A = Excellent = 90% - 100%, B = Good = 80% - 89%, C = Average = 70% - 79%,

D = Poor = 60% - 69%, F = Failing = ≤ 59%, W = Withdrawn

**TEST COVERAGE:** Exams, made up of comprehensive questions taken from the textbook test bank, will be given after the relevant chapters.

**LAB GRADE:** This course satisfies the core curriculum requirement for scientific discovery and sustainability. A minimum lab average of 60 is required in order to pass the course. If your lab average is below 60, regardless of your course average, your course grade will be changed to be equal to your lab average.

**SPECIAL HELP**

Your instructor wants you to succeed! Please come and see me during office hours or by appointment to get individual help. I look forward to helping you understand and enjoy the wonders of the sky.

**Eastfield College Email Policy**

Faculty and students must have and use a DCCCD account for all correspondence relating to academic coursework. For information on setting up a DCCCD student email account go to: [http://www.dcccd.edu/netmail/home.html](http://www.dcccd.edu/netmail/home.html)

**COURSE CALENDAR**

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<th>UNIT</th>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
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<tr>
<td>UNIT 1</td>
<td>Week 1</td>
<td>Modern View of the Universe</td>
<td>Chapter 1</td>
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<td>Discovering the Universe for Yourself</td>
<td>Chapter 2</td>
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<td>Science of Astronomy</td>
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<td><strong>Exam 1</strong></td>
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<td>UNIT 2</td>
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<td>Light and Matter: Reading Messages</td>
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<td>Our Star</td>
<td>Chapter 14</td>
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<td><strong>Exam 2</strong></td>
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<td>UNIT 3</td>
<td>Week 3</td>
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<td>Star Birth</td>
<td>Chapter 16</td>
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<td>Star Stuff</td>
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<td>Bizarre Stellar Graveyard</td>
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<td><strong>Exam 3</strong></td>
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<td>UNIT 4</td>
<td>Week 4</td>
<td>Our Galaxy</td>
<td>Chapter 19</td>
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<td>Galaxies and Modern Cosmology</td>
<td>Chapter 20</td>
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<td>Galaxy Evolution</td>
<td>Chapter 21</td>
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<td><strong>Exam 4</strong></td>
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UNIT 5  Week 5  The Birth of the Universe  Chapter 22  
Dark Matter, Dark Energy, and Fate  Chapter 23  
Life in the Universe  Chapter 24  
Final exam

Obtaining Final Course Grades Using eConnect
Final Grade Reports are no longer mailed. Convenient access is available online at www.econnect.dcccd.edu. Use your identification number when you log onto eConnect. Your grades will also be printed on your Student Advising Report, which is available in the Admissions Office.

Course Certification:
Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.

Financial Aid Statement for Distance Learning Classes
If you are receiving Financial Aid grants or loans and are enrolled in a Distance Learning class, you must show participation in this class prior to the certification date by either e-mailing or contacting the instructor or logging on to eCampus. Do not drop or stop attending any class without consulting the Financial Aid Office. Changes in your enrollment level and failing grades may require that you repay financial aid funds.

Repeating This Course: (Third Attempt to Enroll in a Course)
Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. All third and subsequent attempts of the majority of credit and Continuing Education/Workforce Training courses will result in additional tuition to be charged. Developmental Studies and some other courses will not be charged a higher tuition rate. Third attempts include courses taken at any of the Dallas County Community Colleges since the Fall 2002 Semester. See Third Attempt to Enroll in a Course at: http://www.dcccd.edu/thirdcourseattempt/

Academic Honesty
Scholastic dishonesty is a violation of the Code of Student Conduct. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.

As a college student, you are considered a responsible adult. Your enrollment indicates acceptance of the DCCCD Code of Student Conduct published in the DCCCD Catalog at http://www1.dcccd.edu/cat0506/ss/code.cfm

Academic dishonesty includes, but is not limited to, cheating on tests, plagiarism and collusion. Cheating includes copying from another student’s test or homework paper, using materials not authorized, collaborating with or seeking aid from another student during a test, knowingly using, buying, selling, stealing, or soliciting the contents of an unadministered test, and substituting for another person to take a test. Plagiarism is the appropriating, buying, receiving as a gift, or obtaining by any means another’s work and the unacknowledged submission or incorporation of it in one’s own written work. Collusion is the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements. Academic dishonesty is a serious offense in college. You will be given a failing
grade on any assignment or test upon which you cheat and depending upon the severity you can
be failed for the class, or you can even be suspended from college.

**ADA Statement**
Students with a physical, mental or learning disability who require accommodations should
contact the college Disability Services Office in C237. Call 972.860.8348 or email
efcdso@dcccd.edu. For more information: [http://www.eastfieldcollege.edu/SSI/DSO/index.html](http://www.eastfieldcollege.edu/SSI/DSO/index.html)

**Religious Holidays**
Absences for observance of a religious holy day are excused. Notification of the absence must be
given to the instructor in writing at least two weeks prior to the date of the holy day. A student
whose absence is excused to observe a religious holy day is allowed to contract with the
instructor to take a make-up examination or complete an assignment within a mutually agreed
upon time after the absence.

**Withdrawal Policy**
If you are unable to complete this course, it is your responsibility to withdraw formally. The
withdrawal request must be received in the Registrar’s Office by __________. Failure to do so
will result in your receiving a performance grade, usually an “F.” If you drop a class or withdraw
from the college before the official drop/withdrawal deadline, you will receive a “W” (Withdraw)
in each class dropped. For more information about drop deadlines, refer to the current printed
Credit Class Schedule, contact the Admissions/Registrar’s Office at 972-860-7167 (Room C119),
or contact the division office.

If you drop a class via eConnect, make sure to print a copy of the confirmation and keep the copy.
In the event of a discrepancy it will be the responsibility of the student to provide documentation
of having dropped the class.

**STOP BEFORE YOU DROP**

For students who enrolled in college level courses for the first time in the fall of 2007, Texas
Education Code 51.907 limits the number of courses a student may drop. You may drop no more
than 6 courses during your entire undergraduate career unless the drop qualifies as an exception.
Your campus counseling/advising center will give you more information on the allowable
exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any
other courses with a “W” . Therefore, please exercise caution when dropping courses in any
Texas public institution of higher learning, including all seven of the Dallas County Community
Colleges. For more information, you may access: [https://www1.dcccd.edu/coursedrops](https://www1.dcccd.edu/coursedrops)

**Family Educational Rights and Privacy Act of 1974 (FERPA)**
In compliance with the Family Educational Rights and Privacy Act of 1974 (FERPA), the
College may release information classified as “directory information” to the general public
without the written consent of the student. Directory information includes: (1) student name, (2)
student address, (3) telephone numbers, (4) date and place of birth, (5) weight and height of
members of athletic teams, (6) participation in officially recognized activities and sports, (7) dates
of attendance, (8) educational institution most recently attended, and (9) other similar
information, including major field of student and degrees and awards received. Students may
protect their directory information at any time during the academic year. If no request is filed,
directory information is released upon written inquiry. No telephone inquiries are acknowledged.
No transcript or academic record is released without written consent from the student, except as specified by law.

Children on Campus
The institution strives to protect an environment most conducive to teaching and learning for all enrolled students. Children who are taking part in organized scheduled activities or who are enrolled in specific classes are welcomed. Minor children, however, should not be brought to the institution unless closely supervised by their parent. Minor children should not be brought into classrooms, laboratories or other facilities of the college. This practice is disruptive to the learning process. In the case of an emergency where the student-parent has no alternative but to bring the child to campus, classroom faculty or the administrative heads of other units have full discretion as to whether a child may be allowed to quietly stay in the location. These individuals may require that children be removed by the student-parent from the setting if, in their opinion, the presence of the child is deemed to be disruptive to the learning process. For reasons of security and child welfare the institution will not permit unattended children to be left anywhere on the premises. Parents who have problems with childcare should visit the Counseling and/or Advisement Center to receive referrals to childcare services in the area.

DCCCD Emergency Operating Procedures
http://video.dcccd.edu/rtv/DO/emergency_dcccd.wmv

The instructor reserves the right to amend this syllabus as necessary