

SYLLABUS--PHYSICS 162--ELEMENTARY ASTRONOMY--Spring 2019
ONLINE COURSE -- Online Astronomy Course

Satisfies general education requirement (Origins and Influences Pathway)
David Hedin, LaTourette Hall FW224, hedin@niu.edu
office hours by appointment
nicadd.niu.edu/~hedin/162/1620.html
Observatory: <http://www.physics.niu.edu/physics/observatory/index.shtml>

BOOK: NOT REQUIRED. Suggest Discovering the Essential Universe
by Comins editions 4 or 5 or 6. Assignments will be on course web page.

| Section | Book Chapter EssentialUniverse Ed 6 |
|--------------------------------------|----------------------------------------|
| 1 View of Universe and the Sky | 1 |
| 2 Gravitation and Planet Motion | 2 |
| 3 Light and Telescopes | 3 |
| 4 The Sun | 9 |
| 5 Characteristics of Stars | 10 |
| 6 The Lives of Stars | 11 |
| 7 The Death of Stars | 12 |
| 10 Formation of the Solar System | 4+5 |
| 11 Astrobiology | 15 |
| 8 The Galaxies | 13 |
| 9 Cosmology | 14 |
| Test 1. Sections 1,2,3,4 | February 21 |
| Test 2. Sections 5,6,7 | April 4 |
| Test 3. Sections 8,9,10,11 | May 2 |
| Test 4. final all sections(optional) | May 7 |

Class Operations: In a typical week, there will be two "lectures" on the class web page plus some number of videos or links to other pages. You should go through the lectures and check out the links. Each lecture will have a "feedback" where you tell me something you learned from that day's presentation plus the "feedback phrase" mentioned in the presentation. Two weeks of feedbacks (usually 4) are due the Friday of the second week, and you can send in early. There will also be eight assignments which are usually due on the Sunday of the following week after they are assigned, which can also be turned in early. There are three exams plus an optional final (see grading). Example exams are on the web page and are the best guide for studying for the exam.

Communication: You should e-mail me your feedbacks and assignments in some suitable format (e-mail text for feedback is best though docx or pdf is fine, and docx or pdf files for the assignments though some students have sent me a photo of their assignment)

or put them in my mailbox in the physics office in FW202. The assignments are posted on the course web page. Tests will use Blackboard. I will give the time range for exam taking near the day of the test. The tests are (obviously) open book and open notes. If you can not take the exam that day, contact me before the day of the exam. If you have questions, e-mail me at hedin@niu.edu. You can also arrange an office visit if you are on campus. If your question applies to the entire class, I will then e-mail the answer to everyone.

Grading: Each test will count 100 points and the lowest test score will be dropped. There will be no makeups allowed after the day of the test; a missed test will be considered as the lowest score and dropped. You can choose to skip the final and just count the first three tests. Sample tests are on the web page. The 8 assignments are due the Sunday of the following week they are assigned (1/2 credit if late). They contribute 160 points. The "lecture feedbacks" will count 4 points per lecture with 100 points total and are due the Friday of that week's classes (1/2 credit if late). You can always turn in feedbacks and assignments early, once I have posted them. Any feedback points more than 100 count as extra credit. There are 560 total points in the class.

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|-------------|---------|---|----------------------------------------------|
| Class Curve | 430+ | A | The letter grades posted on Blackboard are |
| | 380-429 | B | meaningless. If you take 4 exams, Blackboard |
| | 330-379 | C | does not drop the lowest exam and so the |
| | 280-329 | D | Blackboard sum of points is incorrect |

There will not be any "minus" grades in this class. I will award "plus" grades (like B+) as appropriate and will determine how to do so at the end of the term.

The learning goals of this course are an introduction to the components making up our Universe.

The learning outcome of this course is the student being able to explain some of the components of the Universe, and include a) analyze issues that interconnect human life and the natural world and b) utilize technology to achieve specific goals.

NIU is committed to providing an accessible educational environment and any student requiring an academic accommodation due to a disability should let their faculty member know as soon as possible, and are encouraged to contact the DRC at 815-753-1303 or drc@niu.edu.

Non-Discriminatory Language: This class will promote non-discriminatory language practices. Academic Misconduct: For a detailed description of the university's definition of academic misconduct, and the process by which it is adjudicated, please refer to the Student Code of Conduct. Sanctions (consequences) for committing academic misconduct include but are not limited to, failure of the assignment, failure of the course, and suspension or expulsion from Northern Illinois University. Cheating and plagiarism of one's own or another's work will not be tolerated. Academic

integrity and civility are expected of every member of the NIU community. Please review the Undergraduate Catalog for more information on this topic. Religious Observances: NIU does not observe religious holidays. It is the university's policy, however, to reasonably accommodate the religious observances of individual students in regards to class attendance, scheduling examinations, and work requirements. Religious observance includes all aspects of religious observance and practice as well as belief. Absence from classes or examinations for religious observance does not relieve students from responsibility for any part of the course work required during the period of absence. To request accommodation, students who expect to miss classes, examinations, or other assignments as a consequence of their religious observance shall provide instructors with reasonable notice of the date or dates they will be absent.