

Descriptive Astronomy 2010 Section 200

Syllabus - Winter 2014 - ATEMS

ONLINE (WEB) COURSE

- READ THIS SYLLABUS THOROUGHLY BEFORE WRITING TO OR CALLING THE INSTRUCTOR WITH QUESTIONS ABOUT THE COURSE.
- THE PREFERRED WAY TO ASK QUESTIONS IS VIA THE DISCUSSION BOARD ON BLACKBOARD. I CHECK THAT FORUM FREQUENTLY AND WILL REPLY MOST EXPEDIENTLY TO QUESTIONS THERE.
- PLEASE WRITE YOUR QUESTIONS CLEARLY, USING PUNCTUATION AND COMPLETE SENTENCES. I MAY IGNORE QUESTIONS THAT ARE WRITTEN IN THE STYLE OF A CELLPHONE TEXT MESSAGE.
- ALSO, PLEASE CHECK THE FORUM FIRST TO MAKE SURE THAT YOUR QUESTION HAS NOT ALREADY BEEN ANSWERED.
- QUESTIONS SUBMITTED BY EMAIL WILL BE ANSWERED AS I AM ABLE. INDIVIDUAL HELP IN PERSON CAN BE OBTAINED DURING OFFICE HOURS AND BY APPOINTMENT ONLY.

Prerequisites: none

Intended audience:

- General audience including science and non-science majors.
- Minimal knowledge of mathematics (elementary algebra) and sciences.
- Ideal for Students seeking to satisfy their GEN-ED Science requirement.
- Must have access to a computer and be familiar with browser usage.
- Must have email access.
- **Must be familiar with the WAYNE STATE BLACKBOARD system.**

Synopsis:

This course is an elementary introduction and survey of Astronomy. It covers a very large range of introductory topics including: The Sky, Orbits and Gravity, Earth-Moon-Sun System, Electromagnetic Radiation, Telescopes, The Sun, The Stars, Stellar Evolution, Relativity and Black Holes, The Milky Way, Galaxies, Quasars and Active Galaxies, Dark Matter, Cosmology, The Solar System, Planet Earth, The Moon, Inner Planets, Outer Planets, Minor Bodies of the Solar System, Other Solar Systems, Astrobiology and the Search for Life Elsewhere in the Universe.

Instructor:

Dr. Elisabeth Atems

- ✦ E-Mail : Elisabeth.Atems@wayne.edu.
- ✦ Office: Room 233, Physics Building, Wayne State University
- ✦ Office hours: To Be Announced.

Course Web Site:

- ✦ <http://ast2010.physics.wayne.edu>
- ✦ The course website provides for weekly reading assignments and unit objectives, self-test questions, link to lecture notes (power point presentations and pdfs, also on Blackboard), and lexicon/glossary.
- ✦ The course website is currently under construction. It is used by more than one instructor. ***Where information on that website conflicts with information in this document and/or Blackboard, this document and/or Blackboard take precedence for purposes of the online section.***
- ✦ The ***ast2010.physics.wayne.edu*** website has restricted access. You need to supply the username ***ast2010*** and password ***Winter2014*** to be granted access to the site. **NOTE THAT THE PASSWORD IS CASE-SENSITIVE. IT MUST BE TYPED EXACTLY AS SHOWN ABOVE.**

Blackboard System (<http://blackboard.wayne.edu>)

- ✦ Blackboard is used for course announcements, online quizzes, and general information related to the course.
- ✦ If you are not familiar with Blackboard, obtain your login ID, and password as soon as possible and immediately test your ability to log on, navigate, and understand Blackboard's different features.
- ✦ ***Weekly quizzes, as well as exams will be taken through Blackboard.***

Course ANNOUNCEMENTS:

- ✦ Course related general announcements will be carried out through the Blackboard system, and/or by email.
- ✦ Log onto the BLACKBOARD website and read your email on a regular basis (e.g. at least every other day) to stay up-to-date with class information.
- ✦ ***Make sure that your University E-MAIL BOX is NOT FULL.***

Lectures:

There are no lectures within the context of this AST2010 online section, however lecture notes power points will be posted both on Blackboard and on the course website. These power points are from lectures that I and other instructors have given in the in-class sections and are supplemental reading for the online section.

Textbook (ABSOLUTELY REQUIRED - NO EXCEPTION):

- ✦ Foundations of Astronomy
- ✦ by Seeds, Backman, and Pruneau, WSU Edition (Brooks/Cole Cengage)
- ✦ ISBN- 9781285900483 (probably others too)
- ✦ Available for purchase at Barnes and Noble on campus – rather expensive.
- ✦ Also available by direct order from the publisher at a discount.
- ✦ The generic 12th edition by Seeds and Backman is not acceptable as the WSU Edition contains three chapters written specially for this edition.
- ✦ A few copies are on reserve at the Adamany Library - but available for a few hours at a time only.
- ✦ Not all, but a large fraction of the material in the textbook will be covered in this course.
- ✦ **It is imperative you read the textbook on a regular basis and do not wait till the last minute to learn the material.**
- ✦ **IT IS YOUR RESPONSIBILITY TO GET A COPY OF THE TEXTBOOK AS QUICKLY AS POSSIBLE SO THAT YOU CAN READ AND LEARN THE MATERIAL NEEDED TO COMPLETE THE WEEKLY QUIZZES.**

Reading Assignments:

- ✦ The reading workload in this course is very heavy, on the order of 50 pages or more of technical reading per week.
- ✦ Reading Assignments are posted weekly on Blackboard.
- ✦ Read the material before answering the weekly quizzes.
- ✦ Reading material includes the textbook units, and the lecture notes posted on Blackboard or the course website.

Self-Study Tests (Self-Tests):

- ✦ Self-test questions are available online on the course website:
- ✦ <http://ast2010.physics.wayne.edu> for each study unit. Use the pull down menu to select the relevant week index and access the self-test.
- ✦ The self-tests are provided to help you identify the material to read, focus on, understand, and remember.
- ✦ You do NOT submit your answers to the self-test questions. You will NOT be graded on the self-tests.
- ✦ Answers to the self-test questions are posted but you are strongly advised to read the material from the textbook and powerpoint lectures before looking at the answers.

Weekly Quizzes:

- ✦ Weekly quizzes are given ONLINE using the Blackboard automated grading system.
- ✦ Quizzes can be taken from home, campus, or anywhere you have access to a computer equipped with a browser, and connected to the internet via a stable, reliable connection. Use of WIFI devices (such as iPhone) is **NOT** recommended.
- ✦ Each quiz consists of a few multiple choice questions - typically 2-3 for each unit.
- ✦ You will have typically 7-9 days to complete each online quiz.

- ✦ There will be one quiz per week.
- ✦ There may be more than one quiz available at a time on Blackboard.
- ✦ The material covered on quizzes is the material covered in the reading assignment of the week.
- ✦ **No partial credit for ONLINE QUIZ questions.**
- ✦ **No makeup for ONLINE QUIZZES.**
- ✦ Do not wait till the last minute to complete a quiz. Quizzes **CANNOT** be taken after their due date and time. If you have not submitted your quiz for grading by the due time, **the Blackboard system WILL NOT GIVE YOU A GRADE FOR THAT QUIZ AND YOU WILL NOT GET CREDIT FOR IT.**
- ✦ ***Do not forget to press/click the SUBMIT button.*** Note that once the SUBMIT button is clicked your answer is submitted and cannot be changed. **So think twice before clicking but do not forget to click...**
- ✦ ***Quiz #0 will be a practice quiz*** in order for all students to familiarize themselves with the Blackboard system. It does not count towards your grade but you are highly encouraged to take it.
- ✦ Each quiz will be weighted equally for grading purposes.
- ✦ Your lowest quiz score (excluding quiz #0) will be dropped for the calculation of your final grade.

Exams:

- ✦ All exams are taken ONLINE ONLY.
- ✦ There will be three PARTIAL exams and one FINAL exam.
- ✦ Partial exams will consist of roughly 50 multiple choice and true/false questions, some of which may require simple calculations. The FINAL will consist of 80 questions of similar types.
- ✦ Material covered on each exam will be announced via this syllabus, by email, and/or through the Blackboard system. See **Course Schedule** below for list of sections covered on each exam. The final is a cumulative exam i.e. covers all the material seen through the semester.
- ✦ Exam Makeups will be scheduled as necessary and taken online only.

- ✦ Makeup Exam dates and times (if any) will be announced on Blackboard.
- ✦ In case an exam date needs to be changed from what is listed in **Course Schedule** below, the new date will be announced on Blackboard.
- ✦ **If you miss both the nominal and makeup times of the final exam, your grade will automatically be F -- NO EXCEPTION**
- ✦ **If you miss two or more exams, your course final grade will automatically be “F” -- NO EXCEPTION**
- ✦ **If you miss the final exam, your course final grade will automatically be “F” -- NO EXCEPTION**
- ✦ **ONLINE EXAMS ARE TAKEN THROUGH BLACKBOARD**
- ✦ **QUESTIONS ARE RANDOMIZED --- EACH STUDENT GETS A DIFFERENT SET AND SEQUENCE OF QUESTIONS.**
- ✦ **MAKE SURE YOU USE A RELIABLE, ROBUST, and STABLE INTERNET CONNECTION. DO NOT, UNDER ANY CIRCUMSTANCES, USE A WIFI (CELL PHONE, IPHONE, etc) DEVICE FOR TAKING AN EXAM - WIFI CONNECTIONS ARE UNRELIABLE AND YOU WILL NOT BE ABLE TO COMPLETE THE EXAMS SUCCESSFULLY.**
- ✦ **IF YOUR INTERNET CONNECTION FAILS, YOU WILL BE GIVEN ONE AND ONLY ONE ADDITIONAL ATTEMPT TO TAKE AN EXAM. *IT IS YOUR RESPONSIBILITY TO ENSURE THAT YOUR INTERNET CONNECTION IS STABLE.***

Planetarium Visit

- ✦ One or more visits to the College of Science and Liberal Arts planetarium will be organized.
- ✦ The visits are now a **REQUIRED** part of the course – attendance is taken and I will receive a list of attendees at the end of the semester.
- ✦ There will be an online quiz for each planetarium show and you will receive up to 2.5% extra credit for taking each quiz, based on your performance.
- ✦ The planetarium has a limited/small number of seats. Many presentations

will therefore be scheduled.

✦ Date and time of the presentations will be posted on the planetarium website. <http://physics.wayne.edu/~planetarium>

Student e-Mails:

✦ **Look for announcements on BLACKBOARD, or BLACKBOARD FAQ PAGE (FREQUENTLY ASKED QUESTIONS), or check the Discussion Board on Blackboard before sending e-mails to your instructor about quizzes due dates, exam dates, etc.**

✦ EMAIL WILL NOT ALWAYS BE ANSWERED ON AN INDIVIDUAL BASIS – CONSULT YOUR UNIVERSITY EMAIL, ANNOUNCEMENTS OR THE DISCUSSION BOARD ON BLACKBOARD FOR ANSWER TO YOUR QUESTIONS.

✦ Be patient - there are many students in this class...

Performance Evaluation

Blackboard Quizzes:	30%
Three partial exams:	48% - Each partial counts for 16%
Final exam:	16%
Planetarium attendance:	6%
Total	100%
Planetarium Quizzes Extra Credit:	2.5% per quiz

Final grades

A	≥ 90 %
A-	85 - 90
B+	80 - 85
B	75 - 80
B-	70 - 75
C+	65 - 70
C	60 - 65
C-	55 - 60
D+	50 - 55
D	45 - 50
D-	40 - 45
F	< 40, or if two or more partial exams are missing or if the final is missing

Notes:

- ✦ All quizzes, partial and final exams, as well as extra credit scores will be posted in the Blackboard Grade book.
- ✦ Final grades will posted on pipeline ONLY.

Laboratory:

- ✦ The laboratory is a separate course (AST2011) - graded separately/independently – generally with a different instructor.
- ✦ The laboratory course is worth 1 credit.
- ✦ The laboratory course is not a co-requisite for AST2010, but it may be required for your program – check with your academic advisor.
- ✦ While the lab is not required for all programs, it is highly recommended.
- ✦ The lab manual will be made available to you online (consult your lab instructor for details).
- ✦ For the lab you will also need to purchase the Star and Planet Locator at the WSU Barnes and Noble Bookstore.

Observation of the Sky - LABORATORY COURSE ONLY

- ✦ Two evenings of observation are scheduled during the semester.
- ✦ Observations are carried on the roof of the Physics building during clear nights.
- ✦ It is extremely valuable to study the manual prior to coming to the laboratory.
- ✦ Laboratory reports are due at the start of the following week lab.
- + If you have further questions, contact me outside of lecture. I am also lab coordinator for AST2011.

Important Notes:

- ✦ There is a large amount of material in this class.
- ✦ It is absolutely critical that you do not wait till the last minute to read the material or prepare for the exams.
- ✦ Read the chapters in the text book weekly.
- ✦ Answer the quiz questions/problems weekly.
- ✦ Try all self-test questions.

Other textbooks of interest

- ✦ Voyages Through the Universe, Fraknoi, Morrison, and Wolff, Saunders Publisher, 2000 Edition.
- ✦ The Cosmic Perspective, Bennett, Donahue, Schneider, Voit, Addison-Wesley Publisher, 5th Edition.
- ✦ The Origin and Evolution of the Universe, Zuckerman, Matthew, Malkan, Jones and Bartlett Publisher.
- ✦ Astronomy, A Beginner's Guide to the Universe, Chaisson and McMillan, Pearson Prentice Hall Publisher 4th Edition.
- ✦ Astronomy Journey to the Cosmic Frontier, J. D. Fix, McGrawHill Publisher, 2nd edition.
- ✦ Redshift, B. Walker, Harcourt.
- ✦ Discovering the Universe, Comins and Kaufmann III, Freeman Publisher, 5th edition.

Attention Students with Disabilities

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. SDS telephone number is 313-577-1851 or 313-577-3365 (TTY: telecommunication device for the deaf; phone for hearing impaired students only). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University. See the SDS website for more information:

<http://studentdisability.wayne.edu/>

Tentative Course Schedule – Winter 2014

Week	Dates	Textbook Sections	Quizzes
1	1/6 – 1/12	Chapter 2 (all)	Quiz 0 (practice) and Quiz 1 due 1/13
2	1/13 – 1/19	Chapter 3 (all), Sections 4.1 – 4.4	Quiz 2, due 1/20
3	1/20 – 1/26	Sections 4.5 – 4.6 and 6.1 – 6.2	Quiz 3, due 1/27
4	1/27 – 2/2	Sections 6.3 – 6.5, Chapter 7, and 8.1 – 8.2	Quiz 4, due 2/3
EXAM #1	2/3 – 2/9	All material through section 8.2	
5	2/3 – 2/9	Sections 8.3 and 9.1	Quiz 5, due 2/10
6	2/10 – 2/16	Sections 9.3 – 9.6, 10.1	Quiz 6, due 2/17
7	2/17 – 2/23	Chapter 11 (all), Chapter 12 (all)	Quiz 7, due 2/24
8	2/24 – 3/2	Chapter 13 (all), Chapter 14 (all)	Quiz 8, due 3/3
EXAM #2	3/3 – 3/9	Section 8.3 through Chapter 14	
9	3/3 – 3/9	Chapter 15 (all)	Quiz 9, due 3/10
10	3/17 – 3/23	Section 16.2, Chapter 17 (all), Chapter 18 (all)	Quiz 10, due 3/24
11	3/24 – 3/30	Chapter 19 (all), Chapter 20 (all)	Quiz 11, due 3/31
12	3/31 – 4/6	Chapters 21 (all), Chapter 22 (all)	Quiz 12, due 4/7
13	4/7 – 4/13	Chapter 23 (all), Chapter 24 (all)	Quiz 13, due 4/14
EXAM #3	4/14 – 4/20	Chapters 15 through 24	
14	4/14 – 4/20	Chapter 25 (all), Chapter 26 (all)	Quiz 14, due 4/21
FINAL EXAM	4/24 – 5/1	Cumulative	