

# Descriptive Astronomy 2010 Syllabus – Winter 2012

Section 02 - Thursday 6:00 PM to 10:00 PM

## Instructor:

Dr. Jagdish S. Thakur,

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- Office phone: 313 577 4580
- Office: Room 214, Physics Building, Wayne State University
- Office hours: Wednesday 11:00 AM-12:00 AM.
- Also feel free to contact me before or after the class lecture.
- Communication via email is preferable.

## 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 to browser usage.
- Must have email access.
- Must be familiar with the WAYNE STATE BLACKBOARD system.

**Prerequisites:** none

## 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, The Planet Earth, The Moon, The Sun, Inner Planets, Outer Planets, Minor Bodies of the Solar System, The Stars, Stellar Evolution, Relativity and Black Holes, The Milky Way, Galaxies, Quasars and Active Galaxies, Order in the Universe, Big Bang Cosmology, Electromagnetic Radiation, Telescopes.

## Course Format:

The course material/content is comprised of reading material from the course textbook and online material delivered through BLACKBOARD.

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

- Blackboard is used for course announcements and general information related to the course and exams.
- All class lectures will be posted on the blackboard.
- If you are not familiar with Blackboard, obtain your login ID, and password as soon as possible and test your ability to log on, navigate, and understand Blackboard's different features.

### Course announcements:

- Course related general announcements will be carried out through the Blackboard system, and by email.
- Logon 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 your University E-MAIL BOX is NOT FULL.***

### Textbook (ABSOLUTELY REQUIRED - NO EXCEPTION):

- Book title: Pathways to Astronomy,**
  - by Schneider and Arny, 3<sup>rd</sup> Edition, McGrawHill Publisher,**
  - Available for purchase at Barnes and Nobles on campus - specially priced for Wayne State students.
  - Also available through various ONLINE vendors. -- Do not expect the same discount.
  - Consider buying a used copy from past students or resellers.
- This book has many units but they are short and easy to read and understand.
- Not all, but a large fraction of the study units 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 you can read and learn the material needed to complete the weekly quizzes.

### Reading Assignments:

- Reading Assignments are given weekly—these are weekly lectures on the blackboard
- Do read and prepare for the lectures and for the weekly quiz.
- Reading material includes the textbook units, and the lecture notes posted on the course website.

### Self-Study Tests (Self-Tests)

- Self-test questions are available online on the course website:
  - <http://ast2010.physics.wayne.edu>
  - To login use: username: ast2010 and password : Winter2012 , (casesensitive)**
- 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 will not be posted. It is your responsibility to find them - and if needed discuss with your peers.

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### Weekly Quiz:

- Weekly quiz will be given in the class on every lecture day, except on the exam day. The quizzes will be closed book. The quiz will be given in the middle of the lecture after the break.
- The quiz will have 7 multiple choice questions. Out of these 7 questions you need to do at least 6 questions.
- Duration of the quiz will be 20 minutes.
- The questions in the quizzes will be from the units covered in the previous week.
- The quizzes will carry a total weight of 27% towards your final.

### Exams:

- There will be three PARTIAL exams and one FINAL exam
- Partial exams will consist of roughly 45 multiple choice questions. The FINAL will consist of about 90 multiple choice questions.
- Material covered on first exam will be from all the units covered before the exam day. For 2<sup>nd</sup> exam, the material will be from the units covered after the 1<sup>st</sup> exam and before the 2<sup>nd</sup> exam. And same method applies for the 3<sup>rd</sup> exam,
- The final is a cumulative exam, i.e., it covers all the units studied during the semester.
- For Makeup exam you need to show a documented evidence of your illness or any emergency.
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- If you miss two or more exams, your course final grade will automatically be "F"**

### Planetarium Visit - Extra Credit

- A visit to the College of Science and Liberal Arts planetarium will be organized.
- Students who attend two shows will be given extra-credit equivalent of 2.5%.**
- The planetarium has a limited/small number of seats. Many presentations will therefore be scheduled.

Interested students can click on "planetarium" at the physics web site or go directly to <http://physics.wayne.edu/~planetarium>

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## CLASSES AND EXAMS SCHEDULE

Months	Days	Units covered	Quizzes	Exams
January	12	1- 6		
January	19	7-12	Quiz-1	
January	26	13-18	Quiz-2	
February	2	19-24		Exam 1 (units: 1-18)
February	9	25-30	Quiz-3	
February	16	31-36	Quiz-4	
February	23	37-42	Quiz-5	
March	1	43-48		Exam 2 (units: 19-42)
March	8	49-54	Quiz-6	
March	22	55-60	Quiz-7	
March	29	61-66	Quiz-8	
April	5	67-72		Exam 3 (units: 43-66)
April	12	73-78	Quiz-9	
April	19	79-84	Quiz-10	
April	26			<b>Final</b>

## Performance Evaluation

Your final grade in this course will be based on the following items:

In class quizzes:	27%	Each quiz is worth 3%
Three partial exams:	48%	- Each partial counts for 16%
Final exam:	25%	
Total	100%	
Planetarium Extra Credit:	2.5%	

Final grades letters will be attributed according to the following table.

A	95 - 100 %
A-	90 - 94
B+	85 - 89
B	80 - 84
B-	75 - 79
C+	70 - 74
C	65 - 69
C-	60 - 64
D+	50 - 59
D-	<50
F	if two or more exams are missing.

Note:

- Final grades will be posted in pipeline ONLY.

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### Important Notes:

- There is a large amount of material in this class but easy to understand.
- It is absolutely critical, you do not wait till the last minute to prepare for the exams
- Read the chapters in the text book weekly.
- Do the quiz questions 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

#### Student Disability Services

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) 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](tel:313-577-1851) or [313-577-3365](tel:313-577-3365) (TDD 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.

Please be aware that a delay in getting SDS accommodation letters for the current semester may hinder the availability or facilitation of those accommodations in a timely manner. Therefore, it is in your best interest to get your accommodation letters as early in the semester as possible.

#### SDS News:

Effective Fall semester 2010 Student Disability Services will be implementing a revised alternative testing form when a student schedules classroom exams/quizzes administration at SDS. As before the student and instructor each have a portion to complete. Exams are to be mailed to a new password protected email address: [sdsexams2010@wayne.edu](mailto:sdsexams2010@wayne.edu).