

**AST 103**  
**Introductory Astronomy**  
**Summer 2014**

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Text: The Essential Cosmic Perspective with MasteringAstronomy, 6<sup>th</sup> Edition. Jeffrey Bennett, Megan Donahue, Nicholas Schneider, and Mark Voit. Addison-Wesley (2012). ISBN-13: 9780321715364  
Web Homework: Access key to MasteringAstronomy. This is sold with new textbooks, otherwise, purchase on-line after logging into MasteringAstronomy **through BlackBoard**. See instructions below .  
eText: MasteringAstronomy for Bennett, The Essential Cosmic Perspective, 6e - with eText. If you do not require a printed textbook, this will be the least expensive option, since it allows access to the eText and the on-line homework system.  
Pre-requisite: Doane Plan Basic Math Skills

**Course Description and Objectives**

Astronomy 103 is a general introduction to modern astronomy. No scientific or mathematical background is assumed beyond the basic mathematical skills requirement for the Doane Plan (Math ACT of 19 or passing DLC/DSS 090). Astronomy is a *science*, however, so you will be expected to develop your critical thinking skills in order to understand and apply the scientific method. In terms of mathematics, we will use only arithmetic and a bit of simple algebra. Topics to be covered include an orientation to the sky, as seen from the earth, basic features of our solar system, properties of stars, properties of galaxies, and evolution of the universe.

As a Doane Plan course, AST 103 is foundational for achieving the college mission and the specific general education outcomes.

Doane College Mission Statement:

Doane College's mission is to provide an exceptional liberal arts education in a creative, inclusive, and collaborative community where faculty and staff work closely with undergraduate and graduate students preparing them for lives rooted in intellectual inquiry, ethical values, and a commitment to engage as leaders and responsible citizens in the world.

Doane Plan Outcomes addressed by AST 103:

- An understanding of the basic phenomena of the natural world, methodologies governing the sciences, and the relationship of both to the world community.
- An understanding of the fundamental processes of mathematics and the ability to use mathematical modeling in solving practical problems.
- The ability to read, write, speak, listen, and interpret meanings effectively.
- The ability to appreciate and explore new areas of learning.

Students who complete the course will

1. recognize key features of the contemporary scientific understanding of the universe and our place in it.
2. describe and practice the processes of science used to develop understanding in astronomy.
3. form the conceptual basis necessary to appreciate new discoveries in astronomy as reported in mainstream news sources.

### **Course Requirements**

All activities associated with this course can be accomplished asynchronously, but there will be some firm due dates, as noted below and in the Course Schedule.

*Reading Assignments:* The course will cover topics in the same sequence as in the textbook, although some chapters will be skipped. See the Course Schedule for details. It will be important to read assigned chapters and to coordinate your reading with viewing the on-line lectures.

*On-line Lectures:* Each course topic will have one or more on-line lectures available through the BlackBoard LMS.

*On-line Discussions:* There will be several on-line discussions throughout the term. Your participation will be assessed according to the Discussion Rubric.

*Homework:* Our homework assignments will generally consist of web-based assignments using the MasteringAstronomy system. For each chapter there will be a reading quiz that assesses basic factual knowledge from the reading or lectures, and there will be one or more chapter tutorials that give you practice applying the concepts. All assignments will have a due date/time. Late submissions will be accepted, but will be assessed a penalty.

*Chapter Quizzes:* There will be an on-line quiz for each textbook chapter covered given through the BlackBoard LMS. Quizzes assess both factual knowledge and ability to apply concepts. You are expected to complete each quiz on your own. Quizzes are open-book, however they will be timed, so it is wise to do some review before taking them. All quizzes will have a due date/time. Late submissions will be accepted, but will be assessed a penalty.

*Final:* There will be a comprehensive final given through BlackBoard. While the final will be open-book, it will be timed, so it is wise to do some review before taking it. Late submissions will generally not be accepted.

## Grading

Your course grade will be assigned using a weighted average of assessed course work and a fixed scale as shown below.

Course work will be weighted according to the following percentages:

Discussions	10
Homework	40
Quizzes	35
Final	15

The following scale is used in assigning grades:

A+	97-
A	92-96+
A-	90-91+
B+	87-89+
B	82-86+
B-	80-81+
C+	77-79+
C	72-76+
C-	70-71+
D+	67-69+
D	62-66+
D-	60-61+

Your weighted average will be calculated using the following formula:

$$\text{Weighted Average} = \frac{(\text{Earned Discussion Points})}{(\text{Total Discussion Points})} \times 0.10 + \frac{(\text{Earned Homework Points})}{(\text{Total Homework Points})} \times 0.40 + \frac{(\text{Earned Quiz Points})}{(\text{Total Quiz Points})} \times 0.35 + \frac{(\text{Earned Final Points})}{(\text{Total Final Points})} \times 0.15$$

**How to register for MasteringAstronomy:**

These are the basic steps you take to link your Pearson and BlackBoard accounts and register for the MasteringAstronomy course site. Do not try to register for MasteringAstronomy outside the BlackBoard system.

1. Log in to the AST103 Blackboard course.
2. Click **Tools** in the left navigation.
3. Click **Pearson's MyLab & Mastering** on the Tools page.
4. Click any MyLab & Mastering content link.

The first time you access the MyLab & Mastering course through Blackboard, you are prompted to accept the End User License Agreement and Privacy Policy and then sign in and register. You must sign in with your Pearson account's username and password. If you do not have a Pearson account you can create one as part of the registration process.

After signing in or registering, the student payment options appear.

5. You can choose to:
  - Purchase access with a credit card
  - Redeem a MyLab & Mastering access code that you already purchased
  - Request temporary access so they can pay later

After this one-time process, you click a link in the Blackboard course to launch MasteringAstronomy course materials. After linking the BlackBoard and Pearson accounts, you are never prompted to sign in to MyLab & Mastering again from within Blackboard.

### **Academic Integrity**

In accordance with Doane's Academic Dishonesty Policy any act of dishonesty in pursuing course work will be penalized. If it is a first act (no reported incidents in any course) the penalty is an assignment of zero points for the particular piece of work involved. Second and subsequent acts of dishonesty will be handled by the Vice President for Academic Affairs. Each act of dishonesty will be reported to the Academic Affairs office.

For this particular course acts of dishonesty include representing someone else's work as your own on quizzes and the final.

### **Students With Disabilities**

Students with disabilities substantially limiting a major life activity are eligible for reasonable accommodations in college programs, including this course. Accommodations provide equal opportunity to obtain the same level of achievement while maintaining the standards of excellence of the college. If you have a disability that may interfere with your participation or performance in this course, please meet with the instructor to discuss disability-related accommodations, and other special learning needs.

Note: This syllabus is subject to change