

Physics 9 The Solar System




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Course Website

physics.ucsd.edu/students/courses/fall2007/managed/physics9/



Fall 2007
University of California San Diego, Department of Physics

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PHYS 9 - The Solar System

Instructor: [Michael Norman](#)

Lectures: TuTh 9:30 AM - 10:50 AM, Pepper Canyon Hall 109

Office Hours: TBA

TA: [Wing Kit Lee](#)

Discussion Section: W 3:00 PM - 3:50 PM, Center Hall 212

Office Hours: TBA

Updates:

9/27/07 Syllabus posted under Handouts.

If you cannot view the files posted on this site, please download the free Adobe Acrobat Reader:

What's this course about?

- Not just descriptions of the ~~9~~ 8 planets
- History of scientific thought
 - Understanding the night sky and the movement of the “wanderers” stimulated modern astronomy
- History of cosmology
 - Until 19th century, solar system and universe were considered one and the same thing
- History of physics
 - Explaining the movement of the planets led Isaac Newton to invent calculus and the basic laws of gravity and dynamics

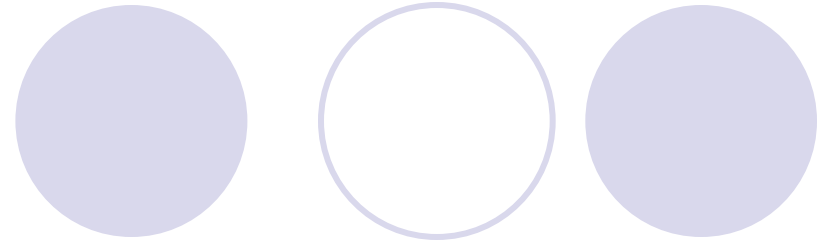
Course, cont'd

- Placing our Solar System in perspective
 - Location in the universe
 - formation as an event in time
- Mysteries and clues about the formation and evolution of the solar system
- Guided tour of nature's many-splendored worlds
 - the 9 Planets (including Pluto—dwarf planet)
 - their moons
 - Asteroid belt, Kuiper belt, and Oort cloud

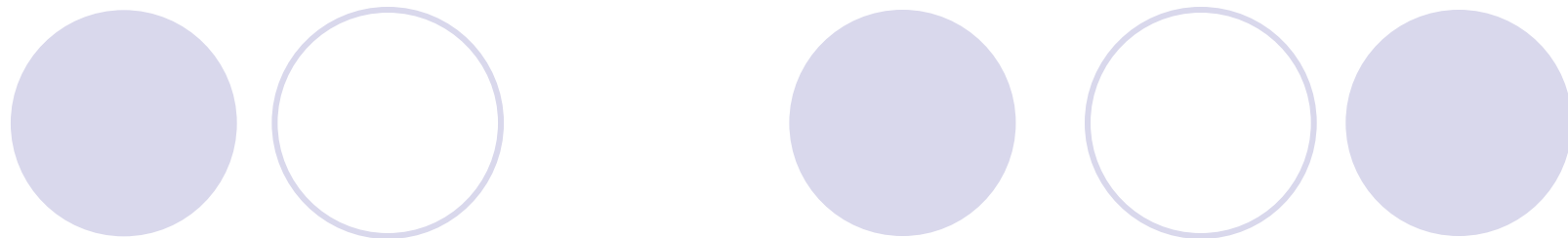
Course, cont'd

- NASA's ongoing program of planetary exploration using probes and landers
 - What are the questions behind them?
 - What do they hope to find?
- Putting our unique planet earth in perspective
 - Its geology
 - It's atmosphere
 - It's evolution

Course, cont'd



- Life in the universe
 - Elsewhere in our solar system
 - Elsewhere in the universe
- Special topics
 - Discovery of water on the moon and Mars
 - Discovery of other solar systems



LECTURE SCHEDULE

Dates	Topics	Reading
Sep 27	Course Intro, Solar System in Perspective	1
Oct 2, 4	Night Sky, Science of Astronomy	2, 3
Oct 9, 11	Matter and Energy, Newton's Laws and Gravity	4, 5
Oct 16, 18	Light, Telescopes	6, 7
Oct 23, 25	Solar System Formation, Planetary Geology	8, 9, 10
Oct 30	Planetary Atmospheres	11
Nov 1	Midterm exam	
Nov 6, 8	Jovian Planets, Rings and Moons	12
Nov 13, 15	Asteroids, Comets, and Pluto	13
Nov 20*	TBA	See website
Nov 27, 29	Unique Planet Earth, Life Beyond Earth	14, 24
Dec 4, 6	<i>In depth</i> : Water in SS, Extrasolar Planets	See Website
Dec 13	Final exam, 8-11am	

Publisher's Website

www.MasteringAstronomy.com

The screenshot shows a Microsoft Internet Explorer browser window displaying the MasteringAstronomy website. The browser's address bar shows the URL <http://www.masteringastronomy.com/>. The website's header features the MasteringASTRONOMY logo and the tagline "The most advanced, educationally effective, online homework and tutorial system in the world." Below the header, a navigation bar prompts users to "TO START: Select your book to register /log in." Two main book options are presented: "Bennett, et al.'s The Cosmic Perspective, 4e" and "Bennett, et al.'s The Essential Cosmic Perspective, 4e". The Cosmic Perspective book is shown with a grid of four smaller book covers, while the Essential Cosmic Perspective book is shown as a single larger cover. At the bottom of the page, there are two promotional sections: one for an "Instructor Overview Movie" and another for "Make Learning Part of the Grade™" which mentions over 12,500,000 student submissions graded and feedback provided. A link for "What are other instructors and students saying?" is also present. The browser's status bar at the bottom indicates "Done" and "Internet".

Registering

MasteringAstronomy: Bennett/Donahue/Schneider/Voit, The Cosmic Perspective, 4e - Microsoft Internet Explorer

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Address <http://session.masteringastronomy.com/myct?productID=bennett4> Go Links

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First-Time User?	Returning User?
<p>Register here with your Access Code to establish your Login Name and Password.</p> <p>Register</p> <p>Want to buy access online? Click below to use your credit card.</p> <p>Buy Now</p> <p>Select a different product</p>	<p>If you have already registered an account, log in here.</p> <p>Login Name <input type="text"/></p> <p>Password <input type="password"/></p> <p>Log In</p> <p>View your account summary</p> <p>Forgot your Login/Password?</p>

Bennett/Donahue/Schneider/Voit, The Cosmic Perspective, 4e

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(4e)

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(3e)

Our class: MLNORMAN0001

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Address <http://session.masteringastronomy.com/myct>

MasteringASTRONOMY Bennett/Donahue/Schneider/Voit *The Cosmic Perspective, 4e*

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Welcome Michael Norman (mlnorman@ucsd.edu)

Message updated successfully.

Instructor message for Course MLNORMAN0001 Edit

Welcome to MasteringAstronomy. We will be using this content-rich website to supplement you learning experience for Physics 9, The Solar System, Fall 2007, UCSD.

Before you do anything else, you must join the class by clicking the tab at left entitled "Join a class". The wizard will then guide you through the enrollment process. YOU MUST DO THIS TO RECEIVE CREDIT FOR YOUR HOMEWORKS AND QUIZZES.

Please familiarize yourself with the resources provided by clicking on the links below or the tabs at left. We will be making extensive use of the tutorials and quizzes.

We will not be using the assignment feature at upper left. Rather, consult the class website for weekly assignments at physics.ucsd.edu/students/courses/fall2007/managed/physics9/. The lecture schedule is also posted there.

Professor: Michael Norman (mlnorman@ucsd.edu)

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Information for Instructors

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Homeworks



- Homework assignments will be posted weekly on class website and publisher's website
 - Work through specified online interactive tutorial
 - Complete and turn in associated worksheet in Astronomy Media Workbook at the beginning of Tuesday's lecture the week after it is assigned

Quizzes



- **Weekly quizzes** will be posted on the class website and the publisher's website
 - Quizzes are not taken in class
 - Quizzes are done online at the publisher's website
 - Grading is done automatically
 - grades are recorded in online gradebook only if you have registered and joined the class

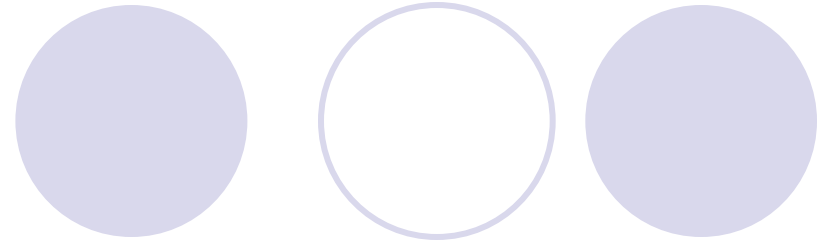


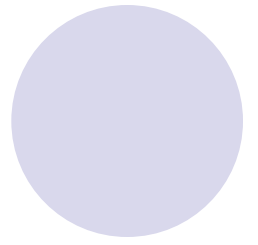
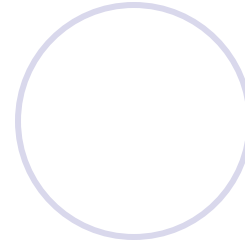
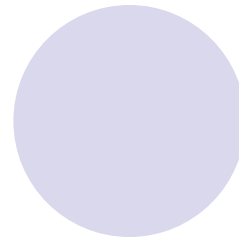
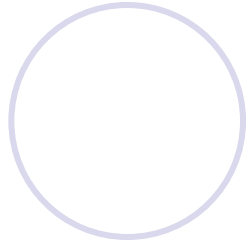
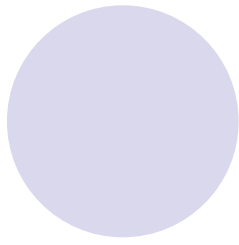
Exams

- There will be two in-class exams
 - Midterm: Nov. 1, covering Chs. 1-11
 - Final: Dec. 13, covering all material
- Multiple choice, T/F and short answer

Grades

- Homework: 20%
- Quizzes: 20%
- Midterm: 25%
- Final: 35%





Questions?