

## COURSE SYLLABUS

**Course Title:** Earth and Space Science

**Course Section Number:** PHY-150-60-2

**Start Date:** January 15, 2015

**End Date:** March 28, 2015

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### **Meeting Information:**

Lecture: Tuesdays and Thursdays, 05:30 PM - 07:35 PM, Pearl Harbor, Room PH

### **Instructor Information:**

Dr. Louis Primavera (call me “Louie” or “Dr. Lou”)

Cell Phone: (808) 489-1204

### **Instructor Education:**

BS in Biology

MA and PhD in Microbiology

### **Instructor E-mail Information:**

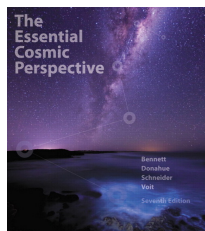
Louis.primavera@adjunct.chaminade.edu

Students: Please include course section and your name in any emails or voicemails sent to the instructor.

### **Office Hours:**

Please consult with me before or after the lecture or before, during, or after the laboratory.

### **Required Textbook:**



Essential Cosmic Perspective Plus MasteringAstronomy with eText, The -- Access Card Package, 7/E

Jeffrey O. Bennett, *University of Colorado, Boulder*

Megan O. Donahue, *Michigan State University*

Nicholas Schneider, *University of Colorado, Boulder*

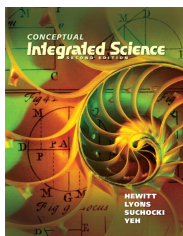
Mark Voit, *Space Telescope Science Institute*

ISBN-10: 0321927842 • ISBN-13: 9780321927842

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Published 01/10/2014

## Recommended Textbook:



### Conceptual Integrated Science, 2/E

Paul G. Hewitt, *City College of San Francisco*

Suzanne A Lyons, *California State University, Sacramento*

John A. Suchocki, *St. Michael's College*

Jennifer Yeh, *University of California, San Francisco*

ISBN-10: 0321811437 • ISBN-13: 9780321811431

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Published 09/20/2012

## Course Description:

PHY 150 is an introduction to the physical sciences. Students will learn about the realms of Astronomy, Physics, and Chemistry and how the physical sciences impact our daily lives. Initially, we will discuss our solar system and the universe. In the Physics section of the course, we will study motion, gravitational force, and particle wave action. Finally, in the Chemistry sessions, the lectures will cover atomic structure, matter, chemical bonding and the formation of compounds.

## Lecture Assignments:

1. Lecture topics are listed in the attached outline. Additional readings and assignments may be given.
2. Attendance is expected in lecture sessions. A sign in sheet will be passed around during each class., and unexcused absences (more than 3) may result in a decrease in grade by one grade level. If you know that you will be unable to attend a class then please let me know by e-mail. Unexcused absence for two consecutive weeks may result in the student being withdrawn from the course without notice. The student is responsible to catch-up on all topics/material covered during their absence.

## Evaluation of Student Performance

1. Separate grades are given for lecture and laboratory. It is possible to receive different grades for lecture and laboratory.
2. There is no curve for exams or final scores. The scale used is given below.
3. There will be three lecture exams and one final exam for this course. The exam schedule is attached.
4. The final examination is a two-hour examination concerning the Chemistry section of the course, which is the material that has been covered between the final lecture exam and the end of week 15.
5. Extra credit work is NOT available.
6. Missed exams can only be made up for valid excuses (to be determined by the instructor). In cases of illness, a physician's note is necessary. Missed final exams can only be made-up in exceptional circumstances.
7. The lecture grade will be determined in the following manner:

Mastering Quizzes	20 percent	Strict scale:	90% - 100% = A
1 <sup>st</sup> Lecture Exam	20 percent		80% - 89% = B
2 <sup>nd</sup> Lecture Exam	20 percent		70% - 79% = C
3 <sup>rd</sup> Lecture Exam	20 percent		60% - 69% = D
Final exam	<u>20 percent</u>		Below 60% = F
	100 percent		

### **Class standing:**

The instructor, prior to the withdrawal deadline, will notify students with grades of D or lower. Students receiving deficiency notices are required to arrange a conference with the instructor.

### **Music Devices and Cellphones**

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cellphones and music devices in laboratories is a safety issue. In addition, use of cellphones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who cannot comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. Please refer any questions to the Dean of Natural Sciences and Mathematics.

### **ADA Accommodations**

Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the CUH Counseling Center (Dr. June Yasuhara; phone 735 - 4845) by the end of week three of the class, in order for the instructor to plan accordingly. Failure to provide written documentation will prevent your instructor from making the necessary accommodations. Please refer any questions to the Dean of Students and review the procedures at [http://www.chaminade.edu/student\\_life/sss/counseling\\_services.php](http://www.chaminade.edu/student_life/sss/counseling_services.php).

### **Academic Honesty**

We expect you to behave with integrity and hold both yourself and your peers to the highest standards of ethical behavior. Academic dishonesty encompasses, but is not limited to: (1) plagiarism (i.e., copying another individual's words or ideas without appropriately citing the source); (2) turning in assignments that somebody else has completed; (3) referring to notes or other written/electronic materials, collaborating with others, copying someone else's work, or providing answers to others in any fashion during an examination. Please note that knowledge of others' cheating and failure to report this can also be construed as complicity in academic dishonesty. Should we have reason to suspect that academic dishonesty has occurred; we will conduct a thorough investigation or may refer the matter to the Dean of Students for investigation. Possible sanctions, should you be found responsible for academic dishonesty, could include a failing grade for the course, suspension or even expulsion from the University. Such consequences could negatively affect your candidacy for graduate/professional programs or for some jobs.

## PHY 150 / Winter 2015

Week	Date	Lecture	Chapt.; pgs
1	1/15	Lecture Syllabus, Course Overview A Modern View of the Universe	--- 1; 1 - 23
2	1/20	A Modern View of the Universe (cont.) Discovering the Universe for Yourself	2; 24 - 52
2	1/22	Discovering the Universe for Yourself (cont.) The Science of Astronomy	3; 53 - 81
3	1/27	The Science of Astronomy (cont.) Making Sense of the Universe: Understanding Motion, Energy, and Gravity	4; 82 - 104
3	1/29	Making Sense of the Universe: Understanding Motion, Energy, and Gravity (cont.) Light: The Cosmic Messenger	5; 105 - 135
4	2/3	Light: The Cosmic Messenger (cont.) Formation of the Solar System	6; 136 - 169
4	2/5	<b>EXAM #1 – Astronomy (Chapters 1 - 5)</b> Formation of the Solar System (cont.)	
5	2/10	Earth and the Terrestrial Worlds	7; 170 - 211
5	2/12	Jovian Planet Systems	8; 212 - 237
6	2/17	Asteroids, Comets, and Dwarf Planets: Their Nature, Orbits, and Impacts	9; 238 - 260
6	2/19	Other Planetary Systems: The Science of Distant Worlds	10; 216 - 283
7	2/24	<b>Exam #2 – Astronomy (Chapters 6 - 10)</b> Describing Motion	2; 18 - 43
7	2/26	Describing Motion (cont.) Newton's Laws of Motion	3; 44 - 68
8	3/3	Newton's Laws of Motion (cont.) Momentum and Energy	4; 69 - 94
8	3/5	Momentum and Energy (cont.) Gravity	5; 95 - 120
9	3/10	<b>Exam #3 – Physics (Chapters 2 – 5)</b> The Atomic Nucleus and Radioactivity	10; 243 - 271
9	3/12	The Atomic Nucleus and Radioactivity (cont.) Investigating Matter	11; 272 - 296
10	3/17	Investigating Matter (cont.) Chemical Bonds and Mixtures	12; 297 - 335
10	3/19	Chemical Bonds and Mixtures (cont.) Chemical Reactions	13; 336 - 375
11	3/24	<b>FINAL EXAM – Chemistry (Chapters 10 - 13)</b>	