

# SYLLABUS (SPRING 2014)

Valencia College – West Campus

Course Number /CRN	AST1002 / 24879
Course Credits	Three (3) credits Three (3) Lecture hours
Instructor	Dr. Vikas SUDESH
E-mail	vsudesh@valenciacollege.edu
Prerequisite	None
Textbook	The Essential Cosmic Perspective with Modified Mastering Astronomy W/ETXT Access Code, 6 <sup>th</sup> edition, by Bennett, and Donahue (ISBN-10: 0-321-89568-1; ISBN-13: 978-0-321-89568-4). <b>PLEASE TAKE NOTE: This package which includes the textbook and access to Modified MasteringAstronomy is required for this course and should be purchased from the Valencia College bookstore. This is a new modified version of MasteringAstronomy which integrates with Blackboard (standard MasteringAstronomy access codes will not work) and the correct code must be purchased new. Access codes purchased elsewhere (Amazon, ebay etc) WILL NOT WORK.</b>
Supply	Scientific Calculator
Lectures Schedule	Fri 2:30 pm – 5:15 pm. Jan 06 to Apr 27, 2014
Room for lecture	WC-001, room 230 <a href="http://frontdoor.valenciacollege.edu/?vsudesh">http://frontdoor.valenciacollege.edu/?vsudesh</a>

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## **Teacher Availability**

As adjunct faculties are on campus only for the lecture time, I cannot offer office hours when I can be reached. However, I can be contacted anytime by email at [VSUDES@VALENCIACOLLEGE.EDU](mailto:VSUDES@VALENCIACOLLEGE.EDU). To help me quickly identify your emails as legitimate be sure to write "AST1002: type your subject here" in the subject box of the email. I will check my emails several times a day every day, weekends included. During the first week of the course, we will make sure that your emails can reach me and mine can reach you and neither gets blocked by spam filters. I will answer all your emails promptly and thoroughly. Also, I am willing to meet you before and after the class, to discuss any doubt or question you may have. I will do everything I possibly can to provide help when you need it.

## **Course Description**

Introductory survey of astronomical universe. Includes study of the earth as astronomical body, solar systems, stars, galaxies and cosmological theories of universe in general. Much emphasis on unprecedented growth of knowledge in astronomy during past decade.

## **Course Objectives**

This course will enable a student to understand and apply the scientific method as well as scientific thinking and experiment. This course will also familiarize the student with the study of astronomical objects, the night sky, using astronomical tools such as telescopes and spectrometers and serve as a prerequisite to upper level planetary science, astrophysics, and cosmology classes.

## **Lectures Content and Attendance Policy**

- Participation to lectures is mandatory. Exceptions can be accepted in particular situations, such as a serious sickness, a major family problem etc., which should be discussed with the teacher as soon as possible.

- Each student will start the term with 10 points of credit. Each unjustified absence to a lecture, or a delay of 30 minutes or more, will cause loss of 2 point. However, it should be remembered by every student that the more severe punishment for missing a lecture is in fact self-inflicted: an opportunity is missed to have a specific and important subject explained in details. What has been presented thoroughly in a lecture will not be explained a second time for the benefits of the students who missed that class: this is obviously done out of respect for those students who attend diligently all lectures.
- The textbook is solely intended as an educational support to help the students reviewing what is presented during the lectures. Some material will be covered during lectures, which is not available in the textbook. The students are responsible for all course content/information regardless if the content/information was presented in the written material of the textbook.

**Homework:** Weekly online homework assignments will be given.

**Tests and Grade assignment.**

- There will be 3 unit tests, plus a comprehensive final exam. Participation to the tests and exam is even more strictly enforced than to the lectures: a test should be missed only under extreme circumstances.

- In case a student misses one test under an extreme circumstance, discussed with and accepted by the teacher, then that student will have the opportunity of taking **one and only one make-up** test. The make-up test will be taken at the Testing Center of the campus, in accordance with the campus policy for such procedure (see the student guide for details). Still, I would like to emphasize that a student will be allowed to make up a test only for missing a previous one under a **really extreme and unavoidable** circumstance. There is NO make-up test to the student who misses the Comprehensive Final Exam.

- Taking good notes during class and keeping them well organized are helpful in achieving good grades in the course. Students **MAY** be authorized to use a list of formulas they have prepared, during the Comprehensive Final Exam, but not during the 3 unit tests. The teacher will communicate in good advance what material the students are allowed to use during the Comprehensive Final Exam. On the contrary, the use of the textbook or any other book during either the Tests or the Final Exam is not allowed. Of course, cellular phones or other communication devices are not allowed anytime during classes, tests and exams. **Cellular phones and i-pads cannot be used as calculators.** Scientific, non-programmable calculators are allowed for Tests and Final Exam.

- Each test, including a Comprehensive Final Exam, will assign a maximum of 15 points.

- Home Work (online) and Quiz will be worth 20 points and 10 points, respectively. These, plus the **10 attendance credit points**, correspond to a total of 100 maximum points: no extra points will be assigned for homework or projects, no extra test will be organized other than the previously-mentioned ones. The final grade will be assigned based on the total number of points gained by a student, according to the table below:

Tests	45 points
Quiz	10 points
Attendance	10 points
Home Work (MA)	20 points
Final	15 points

Points	Grade
90 to 100	A
80 to 89	B
70 to 79	C
60 to 69	D
less than 59	F

Please note the points will NOT be rounded, that means 89.9 is a 'B,' and 79.9 is a 'C.'

### **General Considerations and Hints**

- Students should come to class prepared. Though the below-reported schedule can vary during the course, the subject of each lecture will be announced at the end of the previous one, and the students will be told where in the textbook they can start studying that subject in advance. Reading about a subject before entering the class is a great way of getting the most out of that lecture, and it is strongly encouraged.

- Students should also try to participate actively in each class. Asking questions is strongly encouraged, during and after classes. It should be remembered that not all the subjects covered by the course are in the textbook, thus **taking accurate notes and organization of the notes** are essential to prepare for the Tests and the Final Exam.

- Students are also encouraged to form study group, compare and exchange their notes. This, of course, should be done in an honest and fair way. Selling, buying, giving personal study notes in return for any kind of exchange or obtaining them by threat will be considered cheating and punished accordingly.

### **Policy on cheating**

- Cheating is the worst behavior a student can have and it will not be tolerated. By cheating a student dishonors himself/herself and offends his/her schoolmates, the teacher and the school he/she is attending.

- Talking during a test/exam, bringing forbidden material, fabricating false information to be excused for a missed test, **will be severely punished and may result in an F grade at any time.**

- Obtaining or giving notes from a fellow student in a dishonest way, as previously explained, will also be considered as cheating.

### **Students with Disabilities**

Students with disabilities who qualify for academic accommodations must provide a notification from the Office for Students with Disabilities (OSD) and discuss specific needs with the instructor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities.

### **Withdrawal**

- It is the responsibility of the student to withdraw themselves before the withdrawal deadline.

- For drop-add and course withdrawal dates and procedure, please refer to the student guide and the academic calendar.

**Disclaimer:** The course syllabus and/or planned schedule of topics may be altered at the discretion of the instructor; *changes will be announced in class in a timely manner, when necessary. Your continued participation in this course after the drop-add deadline period constitutes an agreement with and an acceptance of the conditions presented in this syllabus.*

**Specific Subjects and Units of the course**

- This syllabus is **TENTATIVE**. Depending on the class progress, the format, the tests and the covered subjects may be changed.

Wk	Date	Material covered	
Developing Perspective			
1	10-Jan	Our Place in the Universe	Ch. 1
	10-Jan	Discovering the Universe for Yourself	Ch. 2
2	17-Jan	The Science of Astronomy	Ch. 3
Key Concepts for Astronomy			
	17-Jan	Making Sense of the Universe: Understanding Motion, Energy, and Gravity	Ch. 4
3	24-Jan	Light: The Cosmic Messenger	Ch. 5
	24-Jan		Ch. 5
4	31-Jan	<b>Exam 1 (Ch. 1 - 5)</b>	
	31-Jan	Formation of Planetary Systems: Our Solar System	Ch. 6
5	7-Feb	Earth and the Terrestrial Worlds	Ch. 7
	7-Feb	Earth and the Terrestrial Worlds	Ch. 7
6	14-Feb	Jovian Planet Systems	Ch. 8
	14-Feb		Ch. 8
7	21-Feb	Asteroids, Comets, and Dwarf Planets: Their Nature, Orbits, and Impacts	Ch. 9
	21-Feb		Ch. 9
8	28-Feb	<b>Exam 2 (Ch. 6 - 9)</b>	
STARS			
	28-Feb	Our Star	Ch. 10
9	7-Mar	<b>SPRING BREAK</b>	
	7-Mar	<b>SPRING BREAK</b>	
10	14-Mar	Our Star	Ch. 11
	14-Mar	Surveying the Stars & Stellar Graveyard	Chs. 12, 13
Galaxies and Beyond			
11	21-Mar	Our Galaxy	Ch. 14
	21-Mar		
12	28-Mar	Galaxies and the Foundation of Modern Cosmology	Ch. 15
	28-Mar		
13	4-Apr	<b>Exam 3 (Ch. 11 - 14)</b>	
	4-Apr		
14	11-Apr	Dark Matter, Dark Energy, and the Fate of the Universe	Ch. 16
	11-Apr		
15	18-Apr	The Beginning of Time	Ch. 17
Life on Earth and Beyond			
	18-Apr	Life in the Universe	Ch. 18
16	25-Apr	<b>Final Exam (Ch. 1 - 18)</b>	