

**Syllabus**  
**Astronomy 101**  
**Introduction to Astronomy (3 credit)**  
**CRN 22759**  
**UNMV, Fall 2017**

**1. GENERAL INFORMATION**

*Instructor:* Kambiz Shahroudi  
*Phone:* 505-925-8600 (Voice Mail)  
*Email:* [shahroud@unm.edu](mailto:shahroud@unm.edu)  
*Office:* MW 18:15-18:45  
*Class meets:* Voc/Career Tech Center 103; MW 5:00-6:15 PM

**2. COURSE DESCRIPTION**

This is a one semester survey course in Astronomy. It starts with a study of the night sky, a bit of history. It then introduces the foundations and tools of astronomy such as telescope and spectroscope. Then the solar system is discussed. Next the sun as a star is studied. From there, the course discusses the stellar and galactic astronomy, and the course is concluded by a discussion of cosmology and the origin of the universe.

PREREQUISITE: None; Only an interest in Astronomy.

**3. TEXT**

Chaisson & McMillan, "Astronomy, A Beginner's Guide to the Universe, 8<sup>th</sup> edition", Addison-Wesley, 2015

Masteringastronomy Course Code:
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<a href="#">shahroudi63152</a>
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**4. STUDENT LEARNING OUTCOMES (SLO's)**

- Be able to identify and track objects in the night sky;
- Understand the physical laws applied to astronomy;
- Be aware of the techniques used for research in astronomy
- Know the fundamental characteristics of all the objects in the solar system such as planets, comets, and asteroids, and the sun;
- Understand the techniques for measuring distances in Astronomy, and the relation between distance scale and looking back in time;
- Be able to understand the life-cycles of stars and interpret the HR diagram, and based on that classify stars and stellar evolution;
- Classify galaxies and use the distribution of galaxies to cosmology;

- Be aware of the modern theories about the origin of the universe.

## 5. COURSE REQUIREMENTS

### Attendance:

Regular attendance is an essential requirement for this course. A student with equal or more than 15% of the sessions of accumulated absences may be dropped from the course. An absence is defined as not showing up, coming late, or leaving early from the class.

### Exams:

There are three exams, and one comprehensive final exam. Lowest test grade or the average homework quiz grade will be dropped.

## STUDENTS WITH DISABILITIES:

If you have a documented disability, the Equal Access Services office will provide me with a letter outlining your accommodations. I will then discuss the accommodations with you to determine the best learning environment. If you feel that you need accommodations, but have not documented your disability, please contact Jeanne Lujan, the coordinator for Equal Access Services at 925-8910 or [jmlujan@unm.edu](mailto:jmlujan@unm.edu).

## 6. Grading

HW_Average	25%	<b>Grading Scale</b>	
Exam1	25%	90-100	A
Exam2	25%	80-89.99	B
Exam3	25%	70-79.99	C
Final Exam	25%	60-69.99	D
Total	100%	Below 60	F
Lowest exam grade or average homework/quiz is dropped			

## 7. Tentative Schedule:

Week	Chapter
1	Introduction, Prologue – Charting the Heavens
2	CH.1– The Copernican Revolution CH.2 – Light and Matter
3	<b>LABOR DAY (No Class on Monday Sep 4)</b> CH.3 – Telescopes
4	<b>EXAM1 (W Sep 13)</b> CH.4– The Solar System CH.5– Earth and its Moon
5	CH.6 – Terrestrial Planets CH.7– The Jovian Planets
6	CH.8– Moons and Rings and Pluto
7	CH.9- The Sun CH.10-Measuring Stars
8	<b>EXAM 2 (W Oct 11<sup>th</sup>)</b> <b>Fall Break</b>
9	CH.11-Interstellar Medium
10	CH. 12-Stellar Evolution CH.13 – Neutron Stars and Black Holes
11	CH.14- The Milky Way Galaxy
12	<b>EXAM 3 (W Nov 8th)</b> CH.15– Normal and Active Galaxies
13	CH.16– Hubble’s law and Dark Matter
14	CH.17-Cosmology
15	CH.18-Life in the Universe
16	Catch up and Review
17	<b>FINAL EXAM (M Dec 11)</b>