



# STARK STATE COLLEGE

## GENERAL SYLLABUS

### Course Information

Course Name: Astronomy  
 Course Number: PHY105

### Required Materials

**Textbook(s):**

Instant Access (including CCP)

- The Essential Cosmic Perspective; 9<sup>th</sup> edition; Bennett, Donahue, Schneider & Voit; Pearson 2022
- MasteringAstronomy – Online homework

**Required Readings:** N/A

**Additional Materials:**

These are required for this course

- Lab Manual – from bookstore
- Lab Kit – For online only
- Brightspace – Learning Management System (LMS)
- Stellarium software – download version. Install on your phone and computer for free
- Respondus Lockdown Browser

### Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

**16 Week Calendar: in person and online**

Week	Chapters / Exam	Experiments	Projects / other
1	Ch 1 A Modern View of the Universe	Night Sky I	Syllabus quiz, Plagiarism quiz, MS Office quiz
2	Ch 2 Discovering the Universe for Yourself Ch 3 The Science of Astronomy	Scientific Method	SLC visit
3	Ch 4 Making Sense of the Universe	Seasons Assign: Night Sky II	Due: Sun or Moon proposal with SLC Visit
4	Ch 5 Light and Telescopes	Phases of the Moon	
5	<b>Exam I</b> Ch 6 Formation of the Solar System	Light and Spectra	
6	Ch 7 Earth and the Terrestrial Worlds Ch 8 Jovian Planet Systems	Scale Solar System	
7	Ch 9 Asteroids, Comets & Dwarf Planets	Mass of Jupiter	Due: Observation Check I

8	Ch 10 Other Planetary Systems	Crater Creation	
9	<b>Exam II</b> Ch 11 Our Star		
10	Ch 12 Surveying the Stars Ch 13 Star Stuff	Crab Nebula	Due: Observation Check II
11	Ch 14 The Bizarre Stellar Graveyard	HR Diagram Due: Night Sky II	
12	<b>Exam III</b> Ch 15 Our Galaxy	Milky Way Galaxy	
13	Ch 16 A Universe of Galaxies Ch 17 The Birth of the Universe	Hubble's Law	Due: Sun or Moon Project
14	Ch 18 Dark Matter, Dark Energy, & the Fate of the Universe		
15	Ch 19 Life in the Universe	Drake Equation	
16	<b>Final</b>		

### 8 Week Calendar

Week	Chapters / Exam	Experiments	Other
1	Ch 1 A Modern View of the Universe Ch 2 Discovering the Universe for Yourself	Night Sky I Scientific Method	Syllabus quiz Plagiarism quiz Discussion: Introductions
2	Ch 3 The Science of Astronomy Ch 4 Making Sense of the Universe Ch 5 Light and Telescopes	Assign: Night Sky II Seasons Phases of the Moon	Moon Proposals
3	<b>Exam I</b> (Due Wednesday) Ch 6 Formation of the Solar System Ch 7 Earth and the Terrestrial Worlds	Light and Spectra Scale Solar System	
4	Ch 8 Jovian Planet Systems Ch 9 Asteroids, Comets & Dwarf Planets Ch 10 Other Planetary Systems	Mass of Jupiter Crater Creation	Moon Check I
5	<b>Exam II</b> (Due Wednesday) Ch 11 Our Star Ch 12 Surveying the Stars	Crab Nebula HR Diagram	
6	Ch 13 Star Stuff Ch 14 The Bizarre Stellar Graveyard <b>Exam III</b>	Milky Way Galaxy	Moon Check II
7	Ch 15 Our Galaxy Ch 16 A Universe of Galaxies Ch 17 The Birth of the Universe	Hubble's Law & Cosmology Due: Night Sky II	
8	Ch 18 Dark Matter, Dark Energy, & the Fate of the Universe Ch 19 Life in the Universe <b>Final</b>	Drake Equation	Moon Project Discussion: Favorite or missed topic