

This syllabus is provided as a general informational guide. Some of the information may vary depending on the specific course section and instructor. Different sections of the same course may require different textbooks. Verify the section specific textbook information in the CUNY's Academic Course Schedule Web Page. Modifications of the grading system presented here will be communicated by the instructors of the sections when they meet the class.

BOROUGH OF MANHATTAN COMMUNITY COLLEGE

City University of New York

Department of Science

Title of Course GENERAL ASTRONOMY

AST 110 Section _____

Fall 2018

Credits 4

Class hours 3

Lab hours 2

Instructor Information

Name:

Office:

Room:

Email:

Course Description

This course introduces students to understanding the universe from observing the sky and to the astronomical world beyond the earth. The methods of astronomy and our knowledge of the structure of the universe are presented as an ongoing human endeavor that has helped shape modern thought about our place in space.

Prerequisite: (ENG 88 or ESL 62) and ACR 94 and (MAT 12 or MAT 14 or MAT 41 or MAT 51)

Text Resources:

Title: *THE ESSENTIAL COSMIC PERSPECTIVE, 8th EDITION,*

Authors: Bennett, Donahue, Schneider, Voit

Publisher: Pearson

ISBN-10: 0-321-92808-3

ISBN-13: 978-0-321-92808-5

Laboratory: Laboratory Handouts for Experiments, distributed in the first lab meeting.

Other Resources

Use of Technology (if applicable)

Each student is required to supply their own 12-inch ruler that includes metric units (centimeters)

Evaluation & Requirements of Students

Homework and Quizzes	30%
Laboratory Reports	20%
Midterm Examination	25%
Final Examination	25%
<u>Total</u>	100%

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Outline of Topics

	TOPIC	CHAPTERS	LAB EXPERIMENT
1	A Modern View of the Universe Discovering the Universe for Yourself	1, 2	Celestial Identification
2	The Science of Astronomy Making Sense of the Universe: Understanding Motion, Energy and Gravity	3,4	Measurement & mathematics for astronomy
3	Light: The Cosmic Messenger	5	Celestial sphere, star maps
4	Formation of the Solar System	6	Phases of the moon
5	Earth and the Terrestrial Worlds	7	Retrograde motion
6	Jovian Planet Systems	8	Lenses and telescopes
7	Asteroids, Comets, and Dwarf Planets: Their Nature, Orbits, and Impacts	9	Phases of Venus
8	Our Star - The Sun	11	Acceleration due to gravity
9	Surveying the Stars	12	Heliocentric parallax
10	Star Stuff	13	Spectra
11	The Bizarre Stellar Graveyard	14	Hertzsprung-Russell Diagram
12	Our Galaxy - The Milky Way	15	Variable Stars
13	A Universe of Galaxies	16	Galaxy Identification
14	The Birth of the Universe Dark Matter, Dark Energy, and the Fate of the Universe	17, 18	Hubble's Law
15	Finals Week		

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College Attendance Policy

At BMCC, the maximum number of absences is limited to one more hour than the number of hours a class meets in one week. For example, you may be enrolled in a three-hour class. In that class, you would be allowed 4 hours of absence (not 4 days). In the case of excessive absences, the instructor has the option to lower the grade or assign an F or WU grade.

Academic Adjustments for Students with Disabilities

Students with disabilities who require reasonable accommodations or academic adjustments for this course must contact the Office of Services for Students with Disabilities. BMCC is committed to providing equal access to all programs and curricula to all students.

BMCC Policy on Plagiarism and Academic Integrity Statement

Plagiarism is the presentation of someone else’s ideas, words or artistic, scientific, or technical work as one’s own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism.

Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC’s web side, www.bmcc.cuny.edu. For further information on integrity and behavior, please consult the college bulletin (also available online).

Course Student Learning Outcomes (Students will be able to:)	Measurements (Means of assessment for student learning outcomes listed in first column)
1. Students will be able to collect astronomical data in table format	1. Lab write-ups
2. Students will be able to plot astronomical data	2. Lab write-ups
3. Students will be able to interpret plotted astronomical data	3. Lab write-ups, exam questions

	General Education Learning Outcomes	Measurements (means of assessment for general education goals listed in first column)
<input checked="" type="checkbox"/>	Communication Skills- Students will be able to write, read, listen and speak critically and effectively.	Laboratory writeups
<input checked="" type="checkbox"/>	Quantitative Reasoning- Students will be able to use quantitative skills and the concepts and methods of mathematics to solve problems.	Laboratory writeups, exams
<input checked="" type="checkbox"/>	Scientific Reasoning- Students will be able to apply the concepts and methods of the natural sciences.	Laboratory writeups, exams
	Social and Behavioral Sciences- Students will be able to apply the concepts and methods of the social sciences.	
	Arts & Humanities- Students will be able to develop knowledge and understanding of the arts and literature through critiques of works of art, music, theatre or literature.	