

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
The City University of New York
Department of Science

Title of Course: GENERAL ASTRONOMY

Class Hours: 3

AST 110

Laboratory Hours per Week: 2

Semester:

Instructor Information (Phone#, Office#, email):

Credits: 4

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.

Prerequisites: (ENG 88 or ESL 62) and ACR 94 and MAT 8

Corequisites: None

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, and/or homework, and/or exams
2. Students will be able to plot astronomical data	2. Lab write-ups, and/or homework, and/or exams
3. Students will be able to interpret plotted astronomical data	3. Lab write-ups, and/or homework, and/or exams

Below are the college's general education learning outcomes, the outcomes that are checked in the left-hand column indicate goals that will be covered and assessed in this course.

	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.	Lab write-ups, and/or homework, and/or exams
<input checked="" type="checkbox"/>	Quantitative Reasoning- Students will be able to use quantitative skills and the concepts and methods of mathematics to solve problems.	Lab write-ups, and/or homework, and/or exams
<input checked="" type="checkbox"/>	Scientific Reasoning- Students will be able to apply the concepts and methods of the natural sciences.	Lab write-ups, and/or homework, and/or exams

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Required Text:

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

Authors: Bennett, Donahue, Schneider, Voit

Publisher: Pearson

ISBN: 978-0-13-444643-1

0-13-444643-7

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

Other Resources:

Use of Technology (If Applicable):

Evaluation and Requirements of Students

Homework and Quizzes 30%

Laboratory Reports 20%

Midterm Examination 25%

Final Examination 25%

Total 100%

Class Participation

Participation in the academic activity of each course is a significant component of the learning process and plays a major role in determining overall student academic achievement. Academic activities may include, but are not limited to, attending class, submitting assignments, engaging in in-class or online activities, taking exams, and/or participating in group work. Each instructor has the right to establish their own class participation policy, and it is each student's responsibility to be familiar with and follow the participation policies for each course.

BMCC is committed to the health and well-being of all students. It is common for everyone to seek assistance at some point in their life, and there are free and confidential services on campus that can help.

Single Stop www.bmcc.cuny.edu/singlestop, room S230, 212-220-8195. If you are having problems with food or housing insecurity, finances, health insurance or anything else that might get in the way of your studies at BMCC, come by the Single Stop Office for advice and assistance. Assistance is also available through the Office of Student Affairs, S350, 212-220-8130.

Counseling Center www.bmcc.cuny.edu/counseling, room S343, 212-220-8140. Counselors assist students in addressing psychological and adjustment issues (i.e., depression, anxiety, and relationships) and can help with stress, time management and more. Counselors are available for walk-in visits.

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Office of Compliance and Diversity www.bmcc.cuny.edu/aac, room S701, 212-220-1236.

BMCC is committed to promoting a diverse and inclusive learning environment free of unlawful discrimination/harassment, including sexual harassment, where all students are treated fairly. For information about BMCC's policies and resources, or to request additional assistance in this area, please visit or call the office, or email olevy@bmcc.cuny.edu, or twade@bmcc.cuny.edu. If you need immediate assistance, please contact BMCC Public safety at 212-220-8080.

Office of Accessibility www.bmcc.cuny.edu/accessibility, room N360 (accessible entrance: 77 Harrison Street), 212-220-8180. This office collaborates with students who have documented disabilities, to coordinate support services, reasonable accommodations, and programs that enable equal access to education and college life. To request an accommodation due to a documented disability, please visit or call the office.

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 site, www.bmcc.cuny.edu. For further information on integrity and behavior, please consult the college bulletin (also available online).

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	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		