

# Common Course Outline

## ASTM 102

### Astronomy Laboratory

1 Semester Hour

## The Community College of Baltimore County

### Description

#### **Astronomy Laboratory**

Investigates celestial objects; introduces astronomical techniques and analysis of data regarding astronomical observations; may require activities, such as telescope observing and field trips, outside of scheduled lab hours.

*1 credit: 2 laboratory hours per week. Prerequisite: Enrollment in or completion of ASTM 101.*

### Overall Course Objectives

Upon completion of this course the student will be able to:

1. use astronomical terms to refer to positions, motions and characteristics of celestial objects. (I, 1)
2. describe, numerically and graphically, various presentations of astronomical data. (I, 1, 3)
3. incorporate astronomical information into effective written and oral communications. (II, 4)
4. identify bright stars and star groups. (III, VI, 2)
5. make and/or use astronomical equipment (simulated or real). (III, IV, VI, 2)
6. make and/or use observations of celestial objects to draw conclusions about their natures. (III, IV, VI, 2, 6)
7. use astronomical data and scientific methods, individually and collaboratively, to solve problems involving astronomical topics. (III, VI, 2, 3, 4)
8. explain how results from observational technologies are used to develop theoretical models of celestial objects. (IV, 5)
9. use the Internet and/or other informational resources to research astronomical topics. (IV, 6)
10. discuss the roles that astronomical observational technologies have had within various prehistoric and historic cultures. (V, 5, 7)

### Major Topics

Constellations  
Coordinate Systems  
Celestial Motions  
Stars and Star Systems  
Galaxies

### Course Requirements (VII)

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the following:

a minimum of 1 written and/or oral exam  
a minimum of 8 written lab reports  
a minimum of 1 group lab activity requiring student collaboration. Since this course is offered in a variety of formats, this activity may be assessed in a number of ways, depending on the mode of delivery.

At least one graded activity will have an oral component. Since this course is offered in a variety of formats, this activity may be assessed in a number of ways, depending on the mode of delivery.

### **Other Course Information**

This course is a general education core course and a science elective.

This course is also offered in self-paced and World Wide Web formats.

This course together with ASTM 101, Astronomy, fulfills a 4-credit General Education lecture and laboratory requirement in the Biological and Physical Sciences.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

Date Revised: 6/1/00