

AST-111 – General Astronomy Course Syllabus

Course Code:

AST-111

Course Title:

General Astronomy

Course Description:

In this course; students will learn about discoveries concerning planets beyond the Solar System (exoplanets) and the evolution of the Universe (cosmology). Students will likewise be introduced to interesting resources such as NASA's Planet Hunters citizen science project; the Hubble Space Telescope archive and advanced smartphone apps that chart constellations and the night-sky in real-time. Students will also develop skills pertinent to carrying out laboratory work; scientific research; basic arithmetic and visual exercises tied to astronomy.

Prerequisites:

Academic Reading and Writing Levels of 6; Academic Math Level 3

Outcomes and Objectives:

[Please refer to the AST-111 Master Syllabus](#)

Required Text and Materials:

Please confirm edition with [WCC Website](#) or go to the WCC Bookstore and use the Find the Course Materials feature to view the required and recommended course materials: <https://washtenaw.bncollege.com/course-material/course-finder>

- “Pathways to Astronomy” 5th or 6th ed. by Schneider & Arny. A hardcopy of the textbook is recommended and students can obtain a loose-leaf version from [WCC's bookstore](#).
- High-speed internet is needed in part to access Blackboard, and important information is only sent to a student's WCC email.
- A calculator is required that evaluates powers of 10 (e.g., TI-36X Pro).

Course Guidelines:

Dropped from Course: Students who do not complete any of the first three assignments may be auto-dropped from the course.

Grading:

Midterm/final grade letters are not rounded. Students can email the instructor from their WCC address with questions. To help students bolster their grade, the lowest lab, discussion board, module quiz, and test are dropped at term's end.

Labs (math-based)	25%
Quizzes	25%
Tests	35%
Discussion Boards	10%
Observing Project	5%

Labs:

The labs are math based and completed on Blackboard. Unlimited attempts are allowed prior to the deadline and the highest mark is adopted. Example calculations are provided for math questions.

Quizzes (in Modules on Blackboard):

Students shall be quizzed on textbook units listed in each Module section on Blackboard. It is recommended that students have a hardcopy of the textbook. Students have 3 attempts at the quiz, and the highest mark is adopted. The answers are available post deadline for those who completed the task prior to the due date.

Tests:

To prepare for tests students can re-examine their completed Module quizzes, the summaries at the end of each textbook unit, prerecorded lecture videos and slides, and the extra practice questions in the 'Tests' section on Blackboard. Students are responsible for completing the tests within the range cited on the Schedule, and department policy indicates there are no late tests, nor can the dates be adjusted. Once begun a test must be finished in one sitting. The tests are primarily multiple choice, and there is a 2-hour time-limit. Students can draw upon any course material during the test (e.g., textbook, extra practice questions), however, answers cannot be sought from search engines. Tests will be available on Blackboard on their scheduled opening day (see Schedule).

Discussion Boards:

The discussion boards to be completed are listed on the Schedule, and the instructions are on Blackboard (see 'Discussion Boards'). The course will introduce students to e-resources such as NASA's Planet Hunters citizen science project and the Hubble Space Telescope news site. For example, students will participate in one astronomy-related citizen science project from [Zooniverse](#), and submit their findings to a Blackboard forum. The tasks are marked pass/fail (i.e., follow the full instructions cited on Blackboard). Completed assignments by WCC students are offered as a general reference on Blackboard.

Observing Project:

Students will carry out simple visual observations of the cosmos. Ideally it is hoped the task could be completed by eye, and guided by a smartphone app that charts the night-sky in real time (e.g., SkyView or Star Walk 2, which the majority of students rely upon). However, the smartphone apps could be used exclusively to carry out the project if needed (i.e., without going outside to observe stars directly). Binoculars, telescopes, or public observatories can likewise be used (e.g., Ann Arbor's [Observatory](#)). Students are tasked with observing 2 constellations and their brightest star, 2 phases of the Moon, 1 Lunar basin or crater, and 1 Solar System body other than the Moon or Sun (never look at the Sun). There are two components to the observing project: brief monthly updates and a final logbook for bonus marks. The brief monthly updates are posted on Blackboard (see Observing Project) and one details which targets were observed (i.e., "I used the Skyview smartphone app while out gazing at the night-sky to identify the constellations of Gemini & Orion, and the planet Mars."). Two separate brief monthly updates are required throughout the term (one of the three deadlines on the Schedule can be

skipped), and students must comment on the posts of three fellow classmates. Regarding the second component of the project (i.e., the optional logbook for bonus marks), students will submit it to the same forum highlighted above but this time as a PDF/Word file, and it will feature a table of contents at the front highlighting the observed objects, a project reflection, the date and brief sketch for each entry on provided logsheets, a constellation). A completed logbook by a WCC student is offered as a general template. The brief monthly update is required and marked pass/fail (i.e., follow all the instructions), and the optional logbook is worth 1.5% bonus toward your final mark.

Time Commitment:

Students typically commit 12 hours weekly, and approximately 10 textbook units are covered during that time. Do not hesitate to contact the instructor well ahead of time if difficulties emerge.

Deadlines:

Students shall be aware of the deadlines by examining the Schedule. It is broader department policy that there are no late assignments without a Doctor's note. Problems regarding tasks (e.g., lab) cannot be remedied within 48 business hours of the deadline, and Blackboard work must be submitted to be graded (i.e., click the Submit button). All assignments are open in advance of the deadline and tasks can be completed ahead of time, especially if a holiday/break should fall on a deadline.

Communication & Technical Issues:

Students should resend their email to the instructor if an acknowledgment was not received after 48 business hours. Emails must be sent from a WCC account to comply with privacy regulations. For technical or Blackboard issues please phone WCC's 24/7 support.

Academic Integrity:

Plagiarism and other forms of academic dishonesty will result in discipline according to the [WCC Student Rights & Responsibility guidelines](#). Always complete your own work using your own words. If you do use information, ideas, or words from other sources, credit that source using MLA or APA format.

Accommodation of Special Needs:

[Learning Support Services Department](#) provides support to students who may need accommodation for documented disabilities, or other learning need. WCC will work with you to accommodate any of your individual learning needs, however, I need to know of any requests in advance in order to make the necessary arrangements.

WCC Student Policies and Support Information:

Review the material within the Washtenaw Community College Student Policies and Support Information for additional policies and procedures that affect you and your course. Find this information [on this shared page](#).