

ASTR 337: "Connecting with the Sky"
Spring 2016 – Section #001
M/W 6-6:50 pm and Friday 12-12:50 pm

Syllabus

I. Contact and User Information

Professor Dr. Don McCarthy
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Phone: (520) 621-4079
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Office: Steward Observatory, room N404. Take the main elevator up to the fourth floor and walk straight ahead.
Office hours: Tuesday 12-2 pm; Wednesday 2-4 pm (Bookstore #304A); and by appointment. Please (!) do not hesitate to contact me.

Links, Settings, Times

Class Web site: [D2L](#)
Wednesday: 2-4 pm: study session (Bookstore conference room #304A)

II. Course Overview

ASTR 337 is a three-unit course intended for students pursuing the Liberal Arts Minor in astronomy. Our course focuses on observing, measuring, and understanding celestial and atmospheric phenomenon seen both day and night. We will also use the subject of astronomy to improve skills with numbers, in communication (written and oral), and in problem solving.

Expectations: Students are expected to attend every class and to observe the sky daily. Everyone is expected to write clear sentences and paragraphs using good English grammar for all assignments and exams. Since each class will build on the previous one, if you miss a class, you can get behind so quickly that it may be very difficult to catch up, and you will also miss important quizzes, discussions, etc.

Web site: Our Web site on [D2L](#) is the focal point for the course. All course materials will be posted there and available for downloading.

Location: M/W, 6-6:50 pm and Friday 12-12:50 pm in room 141 of the Integrated Learning Center (ILC). There may be occasional exceptions announced beforehand in class, such as Steward Observatory's 21" telescope, the southwest roof observing area, and locations around campus.

Content: Classes will emphasize hands-on measurement and observational skills. This focus will help develop problem-solving skills and reinforce understanding of the scientific method. Reading assignments will be posted before class. Lectures will supplement and expand upon the required reading.

III. Required Course Materials

A composition book is necessary to serve as your daily journal. Your Course Fee (\$53) will provide the materials we use in class for projects, etc.

IV. Requirements

Daily homework assignments are a major component (60%) of this course and will emphasize skills in observation, measurement, logical thinking, numeracy, writing, and basic astronomy. A large portion of the homework will consist of maintaining a detailed, daily journal recording observations and measurements of the sky. Students will take turns presenting their solutions and observations during class. The following rules apply to homework assignments:

1. Electronic submissions are not accepted.
2. All homework papers must be typewritten and stapled. Math symbols and calculations may be handwritten but must be legible.
3. Homework is due at the start of class on the specified date. If an assignment is turned in late, a **late-penalty** of 15% will be assessed for each class period that has elapsed since the due date. Assignments will not be accepted after two subsequent classes.
4. You must always **SHOW** or explain **HOW** you reached a solution by recording intermediate steps in a calculation or describing your solution logically in words. Simply listing an answer is not acceptable and will not receive any points.
5. Some problems require your opinion to be clearly stated. In these cases, your grade will be determined more by your reasoning and writing abilities than by the exact answer.
6. You may **START** an assignment in a team. However, after deciding **HOW** to approach a problem, **you must then make all your own measurements, graphs, and tables and always use your own wording to interpret and express conclusions.** Homework solutions that appear identical are a violation of the Code of Academic Integrity and will receive a grade of zero plus potential expulsion from the course.

Quizzes will be given to promote understanding, self-assessment, attention, participation, and teamwork. Quizzes consist of several questions spread throughout each class.

Exams

There will be two in-class exams (Feb. 19, Apr. 8, and a final exam (May 6, 8:30-10:30 pm). The two-hour final exam will be cumulative and may involve outdoor measurements.

ALL exams will be **CLOSED-BOOK** and **CLOSED-NOTES**. You may bring a handwritten, double-sided page of notes ("crib sheet") to consult during the exam. Exams will emphasize understanding instead of memorization.

Optional project: In lieu of the final exam each student may undertake a substantial project that will comprise 20% of the final grade. This project can take many different forms but should involve creative observational work, not a library "research paper." The topic must be approved in advance by Dr. McCarthy by Feb. 5, and then summarized in a brief proposal.

Academic Integrity

Dr. McCarthy and the Department of Astronomy adhere to the University's Code of Academic Integrity (<http://deanofstudents.arizona.edu/academicintegrity>). The Dean of Students Office has prepared a video describing the Code and resources that are available to you for improving your work. It is expected that each student will do his/her own work on all exams, clicker questions, homework, labs, and projects. During his years of teaching, Dr. McCarthy has developed skills in

recognizing plagiarism and outright cheating. Such violations of the Code can be penalized by expulsion from the University and negative reports in your official records. **If you are having difficulty in this course, PLEASE just ask for help instead of sacrificing your future.**

Teamwork Policy: You may **start** an assignment in a team. However, once you decide HOW to approach a problem, **you must then make all your own measurements and use your own wording** to interpret and express conclusions. Any assignments that appear identical will be awarded "zero" points and can lead to expulsion from the class and the University. At a minimum such violations of the Code will lead to an Academic Integrity investigation with the Dean of Students Office.

V. Course Policies

Absences: You are required to attend each class in accordance with University policy (<http://catalog.arizona.edu/2007-08/policies/classatten.htm>).

Holidays: All holidays <http://www.registrar.arizona.edu/religiousholidays/calendar.htm> observed by organized religions will be honored for those students who show affiliation with that particular religion. All absences pre-approved by the Dean of Students will also be accepted.

Behavior: Dr. McCarthy promises to be respectful of all students. He hopes you will do the same as stated in the Student Code of Conduct (<http://deanofstudents.arizona.edu/policiesandcodes/studentcodeofconduct>) and other University guidelines concerning disruptive (<http://policy.arizona.edu/disruptive-behavior-instructional>) and threatening (<http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>) behavior.

Special accommodations: If you anticipate barriers related to the format or requirements of this course, please meet with Dr. McCarthy so that we can discuss ways of ensuring your full participation in the course. If you determine that disability-related accommodations are necessary, please register with Disability Resources (621-3268; <http://drc.arizona.edu>) and notify Dr. McCarthy of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

VI. Grading

Course Grade: Grades will be derived from the following categories with the indicated percentage weights.

Daily homework and observation journal (60%)

Participation: Attendance, quizzes, office hours, study sessions, etc. (20%)

Final exam or project (20%)

“Participation” includes attending class regularly, completing assignments, in-class quizzes, asking relevant questions during class, seeking help during study sessions and office hours, helping to lead discussions, etc.

Final course grades will be assigned as follows: A (90-100%); B (80-89%); C (70-79%); D (60-69%); E (<60%). Borderline grades, such as B+ ($\geq 87\%$), will be rounded to the next letter grade only if the student completed extra-credit work as discussed below.

“TBD” Grades: Sometimes students misread a question, or get started in the wrong direction, or make a simple mistake that leads to the wrong conclusion. Such assignments will receive a “TBD” grade (i.e., to be determined), allowing you to get back on track to earn a 100% score if you meet with Dr. McCarthy within one week to discuss your work and arrange to improve it.