

## Astronomy 203

### Tier 2 Natural Sciences: Stars (Spring 2017)

**Lectures:** 2:00PM-3:15PM T/TH in Steward N210

**Instructor:** Prof. Kratter

**Office:** SO N328

**TA:** Michelle Wilson

**Office:** T101

**Class Email:** [ASTRKratter@as.arizona.edu](mailto:ASTRKratter@as.arizona.edu)

**Office hours:**

Prof. Kratter: 3:15-4:45PM Tuesdays

Michelle Wilson: 1:30-2:30 Mondays, Wednesday

### Course Description

In this course we will focus on the role of stars in the universe and in our daily lives. We will learn where stars come from, how they change in time, and how they die. Along the way we will examine the most important physical processes that govern the behavior of these astronomical objects. We will supplement the study of stars with readings of science news articles that will be the subject of regular in class writing assignments.

#### Topics to be covered

Method of Scientific Inquiry  
Order of Magnitude Reasoning  
Scales in the Universe  
Motions on the Sky  
Star Formation  
Stellar Evolution  
Supernovae  
Black holes  
Special and General Relativity  
Planet Formation  
Exoplanets

**GRADING:** Your course grade will be based on:

- Homework (drop lowest two scores): 15%

- In class activities / science writing (drop lowest two scores): 25%
- In class tests (drop lowest score): 40%
- Final Exam: 20%

The class will not be curved, grades are absolute. The correspondence between final percentages and letter grades will be: **A:** 85% – 100%; **B:** 70% – 85%; **C:** 50% – 70%, **D:** 30% – 50%; **E:** 0% – 30%.

**TEXTBOOK** For this course we will use “21st Century Astronomy, 5th Edition,” by Kay, Palen, Smith, & Blumenthal. This class is enrolled in the inclusive access program, which gives you immediate access to the ebook and online content from the publisher. No action is required on your part to obtain the book. You are allowed to opt out and not purchase the ebook, however you will need access to the online homework system to complete online assignments.

**ONLINE HOMEWORK:** Homework for the course will consist primarily of textbook readings and online assignments administered through D2L. The due dates will be announced in class and reminders will appear on D2L. You can drop your TWO lowest scores.

**IN-CLASS ACTIVITIES / WRITING** We will have 6 in-class writing assignments throughout the semester based on portrayals of science in the media. You will be asked to read articles in advance, and come to class ready to write and discuss with your peers. Participation in the discussion is part of the grade. There will also be periodic, unannounced, in-class activities to reinforce challenging concepts. You can drop your TWO lowest scores.

**IN-CLASS TESTS** There will be THREE in class tests during the semester. Your ONE lowest score is dropped. No makeup tests without a prior approved Deans Excuse. Please do not ask for exceptions: this is why your lowest score is dropped. They will be held on:

**Tuesday, February 14th**

**Tuesday, March 23rd**

**Tuesday, April 25th**

**FINAL EXAM** The final exam will be held on Monday May 8th from 3:30-5:30PM. Your final exam will not be a traditional cumulative exam. The exam will build on our discussion of science articles throughout the semester.

### **Course Conduct and Expectations**

Please come to class ready to learn and engage with your peers. Student participation is required! In order to ensure a productive learning environment for all students, please note the following strict class rules:

1. NO cellphones in class. They must be kept in a bag or pocket and on silent.

2. Laptops / tablets ONLY for note taking. All students using such devices must sit in the center section in the front three rows.
3. No class disruptions (talking, note passing, etc).
4. Obey the University of Arizona Code of Academic Integrity: [available here](#)
5. Follow the University of Arizona Non-threatening behavior policy: [available here](#)
6. Adhere to the University of Arizona nondiscrimination and anti-harassment policy: [available here](#)

If a student violates any of the above conduct rules the following punitive actions will be taken:

- First offense: ejected from that class, lose any relevant points for in class work that day
- Second offense: ejected from class that day, lose any relevant points for in class work that day, and automatic 5% deduction from your final course grade
- Third offense: ejected from class, automatic course failure

**Course Email and Websites:**

In this class we will make regular use of D2L. It is your responsibility to check D2L regularly for course notifications / updates/ and assignments.

**Email:** All emails regarding the course should be sent to [ASTRKratter@as.arizona.edu](mailto:ASTRKratter@as.arizona.edu). Emails sent to ANY OTHER email address will not get a response. We will aim to respond to all other emails in 48 hours or less.

**Students with disabilities** who require reasonable accommodations to fully participate in course activities or meet course requirements are encouraged to register with the Disability Resource Center (<http://drc.arizona.edu>) and contact Prof. Kratter to discuss accessibility issues.