

**ASTRO 2201    The History of the Universe    Spring 2022**  
**Lecture #2    --    MWF 10:10    --    TBD    --    Professor Haynes**  
**Tentative syllabus as of October 2021**

<b>Prof:</b>	Martha Haynes	530 SpaceSci	Office hours: TBD
<b>T.A:</b>			Office hours: TBD

**Email:** We can be reached via email to mph6\_At\_cornell.edu and XXX\_aT\_cornell.edu, for example, to arrange appointments at other times.

**Web Site:** Find us on Canvas!

**Course content:** A general discussion of our relation to the physical universe and a survey of the fundamental issues of modern astrophysics. Four themes are covered over the course of the semester: (1) our view of the heavens from ancient times to the modern age, (2) how astronomers explore the cosmos, (3) the nature of black holes, dark matter and dark energy and the evidence for them, and (4) the origin, evolution and fate of the universe. The course is designed for non-scientists who are intrigued about astronomy, cosmology and how the universe works.

**Prerequisites:** Curiosity about the universe, how it works and how we know that.

**Teaching mode:** In-person. Because of the nature of the class, attendance is required. Our advice: Astro 2201 is **a lot** easier if you come to class, follow along, and join the discussion in real time.

**Assignments:** This course is being taught under the John S. Knight Institute [Writing in the Majors](#) program. Most of the graded assignments will be in the form of short essays, reports and papers. The emphasis will be on verbal, rather than mathematical, description of scientific subjects and your own observations and perceptions of astronomical topics and phenomena. No formal writing instruction will be given in class, but individualized comments on the organization, content and style of your writing, especially as it illuminates your understanding of the subject, will be given. You are also encouraged to consult the trained writing tutors at one of the [Knight Institute Writing Centers](#). Assignments will include: (a) 2 long papers (~1000-1200 words each); (b) 5 shorter essays (300-500 words). For these, 6 will be assigned but you only have to turn in 5; if you turn in 6, the lowest grade will be dropped; (c) 3 reports researched and submitted as a collaborative project within an assigned group; and (d) a final paper (~1200 words). There is no final exam; the final paper is due by the date determined by the University registrar **(to be announced later)**.

**Discussions on Canvas:** Discussion areas within Canvas will be used regularly to receive questions, post answers, share links, encourage comments and report on astronomical news. Students are expected to contribute at least one post per week.

**What's fair and what's not:** Each student in this course is expected to abide by the Cornell University Code of Academic Integrity; [check it out](#). Any work submitted by a student in this course for academic credit will be the student's own work or by clearly declared collaborative work, as per the assignment. Please remember that most sources found on the web are not scholarly (if not simply *unreliable!*), so be judicious in your use of citations to web sites; note also that journalists get fired for plagiarism! If you have any questions about collaborating with other students, citation of sources or similar issues, ask us.

**Grading policy:** The final grades will be based on a weighted combination of the writing assignments and class participation/discussions: shorter essays (25%), group projects (25%), longer papers (20%), final paper (15%), class/discussion participation (15%). Work handed in late will be penalized in proportion to their lateness (10% of the grade will be deducted for each day of delay in submission) except in emergencies or for important reasons for which alternative arrangements are made at least 24 hours in advance.

**Readings:** There is no required textbook, but we will refer to two of them. Our textbook of choice is *"Discovering the Cosmos" (Second Edition)* by Robert C. Bless. A copy is on reserve in the [Math Library](#) located in Malott Hall (but currently relocated to Mann Library; see special hybrid pandemic hours). We will make regular reading assignments in that book. Note: We use the **2013 edition**; an older 1995 version is grossly out of date; our understanding of the history of the universe is very different from our understanding 25 years ago; even the 2013 edition misses some important discoveries! Additional readings will be assigned in the free Astronomy text <https://openstax.org/details/books/astronomy>.

**Note:** Astro2201 is *NOT* a freshman writing seminar and it *does NOT* count towards the A&S HA-AS distribution requirement. But it does count towards the A&S PBS requirement (pre-fall 2020) and the PHS-AS requirement (students new in fall 2020).