Instructor: Eric Foard, SO ENG 318 E, eric.foard@ndsu.edu 701-231-7045
Teaching Assistant: Kyle Strand, SO ENG 210

Office Hours: TuTh 3:15-4:30 PM, open door, and by appointment.

Description: “Introduction to Astronomy” is a qualitative survey of current and historical human understanding of the Cosmos. Weekly homework, reading, and supplemental media assignments will be completed outside of class, and will be used to foster in-class discussions. Periodic exams (9/15, 10/13, 11/17, and 12/15) will assess understanding.

Objectives and Philosophy: Our culture is shaped by our science and technology. The ability to critically analyze important scientific news, discussions, and policy is essential for our culture to prosper and advance. Critical analysis is a skill that must be exercised, and in doing so students will come to learn the material being analyzed. At the end of this course, students should have sufficient knowledge to understand, and sufficient skills to critically analyze contemporary popular discussions, news, and policy decisions about Astronomy, space exploration, and other general science topics.

General Education: This course has been approved as a General Education Course in Category 3: Science & Technology (S) and Physical Science (Sp).

Textbook: ASTRO, 1st Edition, Backman and Seeds, Brooks/Cole Cengage Learning. Must include an unused access code (found on a card inside the front cover) for online homework assignments using WebAssign. May be purchased from the campus bookstore, or ordered directly from the publisher.

Special Materials: Dedicated three-ring-binder notebook for taking notes on assigned readings, media, and in-class discussions. 3x5 index cards for in-class writing assignments and feedback. Access to a reliable computer and internet access for accessing assigned media and completing online homework assignments.

Attendance: Per NDSU policy (Section 333), attendance in classes is expected. In-class discussion is an essential part of the class, and cannot be made-up at any other time, therefore no unexcused absences will be accepted. It is the responsibility of any students with an unavoidable absence to arrange in advance with the instructor for a makeup assignment.

Course Outline: Class time will generally consist of small group, and class-wide directed dis-

*“The Cosmos is all that is, or ever was, or ever will be.” – Carl Sagan
cussions of assigned material. Reading the text and viewing supplemental material before their discussion in class is essential. Reading and supplemental assignments may be accompanied by questions, comments, or other notes which the student should consider while they’re studying the material.

Course Schedule (Subject to Change):

- 08/25 Tu: Course Introduction
- 08/27 Th: Discussion of Chapter 1
- 09/01 Tu: Media Discussion, Ch 1 Homework Due
- 09/03 Th: Chapter 2 Discussion
- 09/08 Tu: Media Discussion, Ch 2 Homework Due
- 09/10 Th: Chapter 3 Discussion
- 09/15 Tu: Exam 1, Ch 3 Homework Due
- 09/17 Th: Chapter 5 Discussion
- 09/22 Tu: Media Discussion, Ch 5 Homework Due
- 09/24 Th: Chapter 6 Discussion
- 09/29 Tu: Media Discussion, Ch 6 Homework Due
- 10/01 Th: Chapter 7 Discussion
- 10/06 Tu: Media Discussion, Ch 7 Homework Due
- 10/08 Th: Chapter 8 Discussion
- 10/13 Tu: Exam 2, Ch 8 Homework Due
- 10/15 Th: Chapter 9 Discussion
- 10/20 Tu: Media Discussion, Ch 9 Homework Due
- 10/22 Th: Chapter 10 Discussion
- 10/27 Tu: Media Discussion, Ch 10 Homework Due
- 10/29 Th: Chapter 11 Discussion
- 11/03 Tu: Media Discussion, Ch 11 Homework Due (Election Day)
- 11/05 Th: Chapter 12 Discussion
- 11/10 Tu: Media Discussion, Ch 12 Homework Due
- 11/12 Th: Chapter 13 Discussion
- 11/17 Tu: Exam 3, Ch 13 Homework Due
- 11/19 Th: Chapter 14 Discussion
- 11/24 Tu: Media Discussion, Ch 14 Homework Due
- 11/26 Th: School holiday; no classes in session. (Thanksgiving Day)
- 12/01 Tu: Media Discussion
- 12/03 Th: Chapter 15 Discussion
- 12/08 Tu: Media Discussion, Ch 15 Homework Due (Dead Week)
- 12/10 Th: Final Discussion, Discussion Notebook Due (Dead Week)
- 12/15 Tu: 1:00 PM Exam 4

Grading: Letter grades are based on the “10-point scale”.

- **A**: 90–100%,  **B**: 80–89.5%,  **C**: 70–79.5%,  **D**: 60–69.5%,  **F**: 0–59.5%
- Homework Assignments .................................................40%
- Exams (Best 3 of 4) ..........................................................30%
- In-Class Participation ......................................................20%
- Discussion Notebook ......................................................10%
**Homework** assignments are performed online, outside of class, and consist of the largest single portion of the grade. Assignments are due at the start of class. Late work will not be accepted.

**Exams** are multiple-choice, scored on the five-choice General Purpose NCS Answer Sheet (available at the NDSU bookstore) which must be **supplied by the student**. The first three exams take place during regular class meeting times, with the final exam given at NDSU-assigned scheduled time during finals’ week. The average of a student’s three highest exam scores will determine the overall exam portion of their grade. In the case of an unavoidable absence, a student may be allowed to take an exam in advance, pending instructor approval. **No makeup exams will be given** after the time of the scheduled exam.

**In-Class Participation** will be expected of all students on every non-exam class day. Participation will include discussions at one-on-one, group and whole-class levels, and a short written assignment which will be handed in at the end of each period. Each class period I will randomly select a list of student IDs for participation evaluation — **if your ID is selected for that day, you must check in with me at the beginning of the period**. I will assign bonus participation credit to any student contributing especially thoughtful, insightful, or useful statements to discussions. Participation grading will be based on the following guidelines:

- **Excellent**: The student is present, prepared, and engaged. They consistently refer to past reading, relevant news items and class discussions, and encourage other students’ comments and questions.
- **Good**: The student is present, prepared, and offers thoughtful questions and comments that demonstrate their preparation for discussion attention to assigned readings and media.
- **Adequate**: The student is present and prepared. Their contributions to discussions are limited to clarifying questions and surface-level observations about assigned material. *e.g.* stating facts, asking about vocabulary, etc.
- **Insufficient**: The student offers no substantive comments, observations, or insights which demonstrate preparedness or understanding of the material.

**A Discussion Notebook** will be kept by each student. The contents of that notebook will vary depending on the discussion subject and objectives, but will generally contain notes and Q&A taken during out-of-class study, and key points of in-class discussion. Among other criteria, the notebook will be graded on neatness, cohesiveness, and thoughtfulness. I suggest a simplified form of the “Double-Entry Notebook” where a page is divided into two columns with important, confusing, interesting, or controversial statements found during study recorded on the left, and personal reflections and class discussions on those statements recorded on the right. Throughout the semester I will randomly select student IDs for evaluation and feedback. At the end of the semester all students will turn in their discussion notebook for evaluation as a record of their progressing skills at critical analysis.

**American with Disabilities Act**: Any students with disabilities or other special needs, who need special accommodations in this course are invited to share these concerns or requests with the instructor and contact the Disability Services Office as soon as possible.

**Academic Honesty**: The academic community is operated on the basis of honesty, integrity, and fair play. NDSU Policy 335: Code of Academic Responsibility and Conduct applies to cases in
which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the Office of Registration and Records. Informational resources about academic honesty for students and instructional staff members can be found at [www.ndsu.edu/academichonesty](http://www.ndsu.edu/academichonesty).

**Important Dates:**

- Last Day to Add/Drop ................................................. Sept 2
- Exam 1 ................................................................. Sept 15
- Exam 2 ................................................................. Oct 13
- Last Day to Withdraw .............................................. Nov 13
- Exam 3 ................................................................. Nov 17
- Exam 4 ................................................................. Dec 15