Astronomy 31: Stellar Structure and Evolution

This class is aimed at people majoring in the physical sciences, especially those who are majoring in astrophysics. The goal is for you to learn both some of the theoretical grounding of stellar astrophysics, but also to learn some of the tools professional astronomers use including data analysis, coding, collaboration on projects. Both will be new to most of you, and therefore challenging. Success will depend on coming to class, doing all assigned work in a timely fashion (including reading the book), and most of all SEEK HELP WHEN YOU NEED IT! I expect to see each of you in my office hours at least once this semester.

Lectures:
Tuesday and Thursday from 3:00 PM to 4:15 PM (Block J+) in CLIC 401, Collaborative Learning and Innovation Complex (574 Boston Avenue, Medford).

Instructor:
Prof. Danilo Marchesini, CLIC, Room 312-E
Office Telephone: (617) 627-2756
Internet Address: Danilo.Marchesini@tufts.edu

Office Hours:
Given the size of the class, the best way to meet with me during office hours is to email me to set up a time mutually convenient during the week. Do not hesitate to contact me AS SOON AS you encounter difficulties in the course, especially for homework sets (but in general, for any matter). My preference for office hours is in the mornings of Tuesdays and Thursdays.
TAKE ADVANTAGE OF OFFICE HOURS!

Prerequisites:
Physics 11 and 12 (co-prerequisite), or instructor’s consent.

Requirements:
To attend this course, you are required to sign a document stating that you are familiar with the Rules of Academic Integrity and promise to exercise the highest standards of academic honesty in this course. This document is at the end of the syllabus. If you join late, please see the instructor to sign this document.
**Textbook**


If you are planning on taking AST32 (Galactic and Extragalactic Astrophysics) as well in future semesters, you should strongly consider buying the full book as you will cover the “extra-galactic” chapters of the book in that class.

I will be teaching mostly using handouts and lecture notes.

**Course Website**

*http://cosmos.phy.tufts.edu/~danilo/AST31/AST31.html*. You should check this site regularly, especially for the updated syllabus and schedule of the course, and other documents.

**Course Format**

Classes will comprise of lectures, in-class problem solving sessions and discussions. Homework sets will be administered regularly.

**Grading policy**

Your final grade will be weighted as follows:

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<tr>
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<th>Score</th>
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<tr>
<td>Homework assignments:</td>
<td>25%</td>
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<tr>
<td>Midterm exam:</td>
<td>25%</td>
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<tr>
<td>Presentations:</td>
<td>15%</td>
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<td>Final exam:</td>
<td>35%</td>
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**To pass this class you need a minimum of 60%**. The grades will be distributed as follows:

A=90-100%,  B=80-89.99%,  C=70-79.99%,  D=60-69.99%

**If needed, the above percentiles may be lowered, but not raised.**

Make sure you double check your grades on the course site on Canvas from time to time, as these are the grades from which the final is computed. If there is a typo (or else), is your responsibility to alert me in a timely fashion.
**Homework**

There will be five homework sets on problems that are representative of the class lectures. The homework assignments should be approached as the best way to prepare for the in-class midterm and final exams. Homework solutions will NOT be posted. If you'd like to discuss your homework grading, make sure to attend office hours.

**Presentation**

You will be assigned a topic over which you will prepare a 30 min lecture/presentation. This lecture will be delivered by you in class in the last weeks of classes. The main goals for this assignment is to develop/strengthen your skills to critically read a chapter/paper and summarize it, and to develop/strengthen your presentation skills. Attendance to all students’ presentations is MANDATORY. The students not presenting will be required to ask at least one question.

**Work submitted late**

All assignments are due at the beginning of class on the due date, or you can email me a scan of your assignment. **You get 5% off for every day after the due date.** Extension on the homework are only allowed with a note from health services or an email from a dean. Maximum extension is one week.

**Exams**

There will be **ONE MIDTERM IN-CLASS EXAM (PLUS A MANDATORY COMPREHENSIVE FINAL EXAM). THERE ARE NO MAKEUP EXAMS.**

**MIDTERM IN-CLASS EXAM:** Tuesday, October 23\(^{rd}\), 2018, CLIC 401

**FINAL EXAM:** This exam is comprehensive and covers the whole material covered in class and in assignments.

**Tuesday, Dec 18\(^{th}\), 2018 - 7:00 PM - 9:00 PM.**

**Location:** TBD

**Early/Makeup exams**

**NO EARLY EXAMS OR MAKEUP EXAMS ARE OFFERED FOR ANY EXAM.** Exceptions are made for legitimate, documented emergencies that are cleared with the Dean of Student Affairs. **IMPORTANT:** if you are sick with flu symptoms, stay in your room and call for medical assistance; do not come to class; it is your responsibility to prevent spreading the disease.

**Accommodations:**

Tufts University values the diversity of our students, staff, and faculty, recognizing the important contribution each student makes to our unique community. Tufts is committed to providing equal access and support to all qualified students through the provision of reasonable
accommodations so that each student may fully participate in the Tufts experience. If you have a disability that requires reasonable accommodations, please contact the Student Accessibility Services office at Accessibility@tufts.edu or 617-627-4539 to make an appointment with an SAS representative to determine appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

**Academic honesty**

Tufts holds its students strictly accountable for adherence to academic integrity. The consequences for violations can be severe. It is critical that you understand the requirements of ethical behavior and academic work as described in Tufts’ Academic Integrity handbook. If you ever have a question about the expectations concerning a particular assignment or project in this course, be sure to ask me for clarification. The Faculty of the School of Arts and Sciences and the School of Engineering are required to report suspected cases of academic integrity violations to the Dean of Student Affairs Office. **If I suspect that you have cheated or plagiarized in this class, I must report the situation to the dean.**

By attending this class you are expected to have read and understood the rules of Academic Integrity (http://students.tufts.edu/student-affairs/student-life-policies/academic-integrity-policy) and are automatically agreeing to adhere to these rules.

As advised by the Dean of Student Affairs you are required to sign a document stating that you understand these rules and will adhere to them. Sign and hand in the last page of this document you are currently holding. It is expected that students in Astronomy 31 will maintain the highest standards of academic honesty. In particular, it is expected that:

- During tests and examinations, you will not accept or use information of any kind from other students. You will not use aids to memory other than those expressly permitted by the examiner.
- You will never represent the work of another student as your own.
- You will never try to deceive the instructor or teaching assistant by misrepresenting or altering your previous work or that of others.
- You are allowed to discuss approach and methods with other students, but you must do your own homework and must hand in your own handwritten work. You are not allowed to copy text or phrases from other students or other sources in books, magazines, the internet, etc.

**Exam Policy:** Do NOT bring unauthorized materials, information, or any electronic equipment with you to a room in which an exam is being administered. Do NOT engage in behavior that gives the appearance of cheating, such as passing a note to a friend, whispering to another student while the exam is in progress, or looking in the direction of another student's work. Do NOT bring your cell phone, tablet, music device, programmable calculator or any other electronic device to an exam room. If an exam proctor sees you handling an electronic device even to silence a phone if it rings or vibrates in the middle of the exam, the Judicial Affairs Administrator will treat it as an academic integrity violation. DO turn off your cell phone and put it out of reach, out of sight, or as instructed before the exam begins.

Departures from these standards will be review with utmost seriousness by myself and Tufts University and will be reported to the Dean of Student Affairs.
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It is expected that students in Astronomy 31 will maintain the highest standards of academic honesty. Departures from the standards specified in the syllabus and Tufts’ Academic Integrity handbook will be review with utmost seriousness by myself and Tufts University and will be reported to the Dean of Student Affairs.

I understand and agree to these terms

Date: ___________________________  Student ID: ________________________

Print Name: ________________________

Signature: ________________________