Course Title: Astrophysics of the Interstellar Medium

Course Semester: Spring 2021

Course Times: MWF 8

Course Institution: University of Florida

Course Instructor: Professor Desika Narayanan

Instructor Contact Information:

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Course Objectives/Goals:

This course will provide an overview of the physics of the interstellar and intergalactic medium: "the stuff between the stars".

Required Textbook:

"Physics of the Interstellar and Intergalactic Medium" by Bruce Draine

Also useful:

"Radiative Processes in Astrophysics" by Rybicki & Lightman

"Physical Processes in the Interstellar Medium" by Lyman Spitzer

Assessment:

There will be homeworks throughout the semester (roughly a 4-6 assignments). These homeworks can be solved however you like: analytic or computationally. Previous experience in programming is necessary for this course (python strongly preferred, though not required).

Finally, we will have regular (daily) required readings/discussions in the course of relevant research papers and review papers. We will have discussions in class about these papers where you are expected to participate and contribute. Students will be randomly called on to lead discussion, summaries, and/or contribute questions regarding the paper.

Homeworks will be due in the beginning of class. Unexcused late assignments will be accepted with 20% grade loss per day, for maximum of 5 days late. Exceptions include medical or other extenuating circumstances.

Grading:

Homeworks: 75% Participation 25%

Letter	% Points	GPA	Letter	% Points	GPA	Letter	% Points	GPA
Α	93-100	4.0	B-	80-82	2.67	D+	67-69	1.33
A-	90-92	3.67	C+	77-79	2.33	D	63-66	1.0

Letter	% Points	GPA	Letter	% Points	GPA	Letter	% Points	GPA
B+	87-89	3.33	С	73-76	2.0	D-	60-62	0.67
В	83-86	3.0	C-	70-72	1.67	Е	0-60	0

UF grade policies may be found at:

https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Attendance: Requirements for class attendance and other work in this course are consistent with university policies that can be found at:

https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Honor Code:

Formal Language: UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honorcode/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class"

My Language: Collaboration is an important aspect of science, and you will likely learn as much from one another as you will from me. Hence, you are *highly encouraged* to work together and consult one another as you work on your assignments. You may additionally consult the internet as well as any books necessary to complete your assignments. You must, however, turn in your own individual homework, and this must be written on your own. Copying and pasting is not permitted.

You may not obtain materials from students who have taken this course in previous years, nor may you distribute your current materials to students not currently enrolled in this class. Please consult me if you have any questions.

Evaluations:

"Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/."

Disabilities: I am committed to supporting the learning process for all students. Please contact me as soon as possible if you are having difficulties in the course. If you need a special accommodation due to a disability, please let me know. Students with

disabilities requesting accommodations should additionally register with the Disability Resource Center (352-392-8565), www.dso.ufl.edu/drc by providing appropriate documentation. Once registered, students will receive an accommodation letter which should be presented to the instructor when requesting accommodation.

Contact information for the Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc/Default.aspx, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Learning Environment and Day to Day: I embrace the diversity of age, background, ethnicity, gender identity and expression, national origin, religious affiliation, sexual orientation and other visible and non visible categories that you bring with you to our shared study of physics. We will all be working closely together throughout the semester, and I expect that all students will contribute to a respectful, welcoming, and inclusive environment. This includes showing respect for all questions asked by members of the class.

Class Attendance and Makeup Policy: Class attendance is expected. Each unexcused absence will result in a 10 point reduction in the final grade. Excused absences are consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation.

Getting Help:

For technical assistance, please follow the links in this page.

For other help, please contact Student Services: https://oas.aa.ufl.edu/uf-sss/

umatterwecare is a good clearinghouse for a range of types of student support at UF

<u>Gator Career Closet</u> is a great organization to get you professional clothes for interviews and other professional situations.

Food insecurity: A significant number of college students identify as food insecure. UF has resources for combating this <u>here</u>.

Lectures in an online environment: Our classes will not be audio-visually recorded in order to encourage cameras on, and active participation. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is strictly prohibited.