Syllabus

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| PHYS 4803JW: Fundamentals of Astrophysics  Fall 2012, MWF 11:05am-11:55am, Howey Bldg S104  Contact Information  **Instructor:**  Prof. John Wise  **Office:**1-61 Boggs Building  **Telephone:** 404-894-5208  **Email:** jwise@physics.gatech.edu  **Office hours:** Tuesday 1-2pm or by appointment  Textbook  **The Physics of the Interstellar Medium**, 2nd ed., J. Dyson & D. Williams  ISBN: 0-7503-0460-X  Course Objectives  This course provides instruction on the fundamentals of astrophysics, with an emphasis on the interstellar medium, gas dynamics, extragalactic astrophysics, radiation processes, and radiative transfer. The course assumes good previous knowledge of stellar astrophysics and modern physics. The course provides the basis of theoretical aspects of the most relevant astrophysical processes in the interstellar medium, intergalactic medium, and star formation and its effects on their environment.  Tests and Grading   * Homeworks: 50% of the final grade * Quiz 1: 10% of the final grade * Quiz 2: 10% of the final grade * Quiz 3: 10% of the final grade * Final exam: 20% of the final grade   The quizzes will last 50 minutes and will typically cover the last two chapters.  The final exam will include all material covered in the course.  **Grading scale:** 90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, 0-59 = F.  For a pass/fail grade, a C or higher is considered passing.  Homework  There will be one 3-problem set after every chapter with each problem worth 10 points.  Homework is due at the *beginning* of the class on the specified due date.  Late assignments are *not* accepted unless previous arrangements have been made.  Students are encouraged to work and discuss problems together, but the written work must be your own.  Course Policy  This course will be taught by conventional lecture methods.  The lectures will not necessarily cover all of the material on which the student will be tested.  The student is responsible for the material indicated by the instructor.  Lecture notes will be posted on T-square, along with homework assignments and solutions.  Grades will be posted on T-square, which the students should check their accuracy.  **Attendance:** Each student should be aware of the regulations that are listed in the student handbook. The class attendance policy, which the Georgia Tech regulations say shall be at the discretion of the instructor, will be as follows: There will be no prescribed maximum number of unexcused absences for this class. However, if it is apparent that lack of attendance at class may be impairing a student's performance in the course, the instructor may require that the student not miss more classes, under the penalty of failing the course.  **Problems:**  The astrophysics covered in this class is based on the core physics undergraduate classes.  To be able to apply the principles of physics, you should work as many problems as possible.  Solutions to the suggested problems will be made available to you after the due date.  If you have difficulty with the problems, ask about them in class and make note of the problem solving techniques covered in class.  If you miss a test, contact me by telephone or email as soon as possible so that arrangements can be made to take the test prior to the next lecture. If you know in advance of a conflict, the test can usually be given prior to the scheduled time. If you miss a test for a valid reason (i.e., you were too ill to take the test, had a serious family illness, etc.), then you must submit a written statement from the Dean of Students, with supporting documentation, as to the cause of the absence to the instructor on the first day you return to class. If the reason is acceptable, your grade will be determined at the instructor’s discretion. If you do not submit an acceptable excuse for missing a test, you will receive a 0 for that test. If you miss two tests for any reason whatsoever, you must initiate a conference with the instructor. Failure to do so will result in a 0 for the second test regardless of the reason for the absence. Regulations regarding cheating and general classroom dishonesty (see the [Georgia Tech Honor Code](http://www.honor.gatech.edu/plugins/content/index.php?id=9)) will be strictly enforced.  **Unexpected Problems:** If a snow and/or ice storm (or any other cause for the Institute to close) occurs on a day scheduled for a test, the test will be given on the first day that the class resumes. Check the web pages for information. |