Physics 101-01: Mysteries of the Sky, Spring 2008

Instructor: Professor Charles Kankelborg

EPS 260C, 994-7853

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Office hours: MW 9:30-10:30, or by appointment

Section I meets: TTh 2:10-3:25 pm, EPS 103

Text: Mysteries of the Sky, 2nd ed. by Adams and Willoughby

Also required: I-clicker, protractor, some 3×5 cards, and a ruler!

Course Objectives: This introductory science course in astronomy has two main goals. The first goal is to acquire an understanding of the role science plays in astronomy. Secondly, you will gain a basic understanding of what we do and do not know about the universe and how we came about this knowledge. Through team activities and in class writing, you will learn how science is done and what it means to think like a scientist.

Grading: 3 midterm exams 19% each, Final exam 20%, In class participation (clicker points) 4%, Team exercises 19%.

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89.5-92.4%
            A-
                   92.5-100%
79.5 - 82.4\%
            B-,
                   82.5 - 87.4\%
                                В.
                                     87.5-89.4%
                                                  B+
69.5 - 72.4\%
            C-
                   72.5 - 77.4\%
                                С.
                                     77.5 - 79.4\%
                                                  C+
59.5-62.4%
            D-, 62.5-67.4\%
                                D,
                                     67.5-69.4%
59.4\% and below: F
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Common Exam Times:

Exam One: 6-7 pm February 5 Exam Two: 6-7 pm March 6 Exam Three: 6-7 pm April 10 Final Exam: 2-3:50 pm May 8

Exams: Common hour exams take precedence over other scheduling conflicts. Plan on attending each exam at the scheduled common exam hour because make up exams will only be given in extreme circumstances, and must be taken within one week of the scheduled exam date. Each midterm exam will consist of two parts: an individual segment and a team segment. Your grade will be the average of the two portions. If you do not take the exam during the common time, your grade will consist of your individual portion only. There are no exceptions to this! Cheating of any kind on exams will not be tolerated—you will receive a zero on the exam and your actions will be forwarded to the dean of students. If you disagree with the manner in which your exam was graded, you must submit this in writing (within two weeks of the scores being posted) and I will review the grading. Headphones and cell phones are not allowed in the classroom or during exams. Please inform your parents of the exam schedule, especially the date of the final exam!

Topics to be covered: The night sky, the history of astronomy, motions of bodies, electromagnetic radiation, telescopes, unraveling the mystery of starlight, stellar evolution, black holes, galaxies, the Big Bang, each planet in the solar system, plus comets and asteroids.

Team activities: We will be forming teams for in-class learning activities the second time we meet. Each team will last all semester long. Your <u>team number</u> must be on every item you hand in for this class. This is an important aspect of the class—you all have a lot to teach each other and you will be expected to do so. Research has shown that students learn more in a social setting than by passively listening to a lecture. Approximately 18 team activities will be completed in class during the semester so your attendance to all classes is encouraged. Your team will be counting on your participation! Your lowest three team activity scores will be dropped at the end of the term. No make-ups are allowed, but half credit will be given for any team activity missed due to an excused absence. Your excused absence must be reported to me within 1 week of the absence to receive half credit.

Each activity will take about half an hour and will be completed by your team and handed in before the end of class. Your team only submits *one* completed tutorial with everyone's name on it and you all receive the same grade on the assignment. It's important that you come to a consensus on your answers before you hand your activity in! By signing your name on the activity you are verifying your own active participation. *Do Not* cover for your friends by putting their names on activities for them when they're absent. This sort of thing is otherwise known as cheating, lying, or academic dishonesty and MSU has established policies (which will be enforced) for those unpleasantries that can be accessed through the main MSU web page as well as in the Student Conduct Guide you have received.

WebCT: The web-based course tool for this course can be accessed through webct. montana.edu. Enrolling in the course automatically enrolls you in the course tool as well. This site will contain information about your grade, useful websites, and slides from lecture. If you have never used WebCT, your username and password will both be your 8 digit student ID (without the minus sign). Be sure to check your official University email (myportal) every week, as this is the method I use to communicate information to the whole class. Email correspondence with me must be through your myportal account as I will not receive nor respond to other (unofficial) email accounts.

I-clickers: These individual "remote controls" allow students to respond anonymously to questions asked during class. Discussion of the possible answers with team members is encouraged for all questions. Each response is worth 2 points. Four of these sessions will be dropped at the end of the semester. Bringing another student's clicker to class *is cheating* and will be handled as such!

Toom number.

Other members of my team:	