

Honors Contract Syllabus for ASTR 101

Serves as Addendum to Class Syllabus

Class: _____, Main course CRN # _____

Schedule: _____, meeting time _____ on _____ days

Instructor: David E. Coleman

Student: _____

This is the honors contract syllabus. Rules herein are modifications and **override** the rules of the primary syllabus of the non-honors version of the course. The primary non-honors syllabus **is attached**. Any information on the non-honors syllabus that is not modified or contradicted by the elements of this honors contract syllabus remains in full force and effect.

I. Course Objectives: The student will meet the required standard PHYN 100 learning objectives (see primary course syllabus) and these objectives will be supplemented by the following enhanced **honors-level learning objectives**:

- (1) Higher degree of student participation and involvement in the class
- (2) Higher standards of performance than expected of regular students
- (3) More opportunities for writing, and at a higher standard
- (4) Stronger enhancement of skills in critical thinking, analysis and interpretation
- (5) Greater depth and/or breadth of subject matter

II. List of Honors Assignments:

- (1) Exam modifications: Although the student will take the same exams as the rest of the students in the classroom, better performance on exams will be expected. See explanation in Section III. This contributes to satisfying objective #2.
- (2) Participation expectations: The student will be expected to participate more during class time interactions. See explanation in Section III. This contributes to satisfying objective #1.
- (3) Extra credit limitations: See below. This contributes to satisfying objective #2.
- (4) Research paper: The student shall choose a research paper to complete by _____ . There is no grace period for lateness. The topic choices are provided later in this document. The paper (15+ pages) will require research at an outside university library and will include a minimum of seven sources, four of which must not be Internet web pages. This contributes to satisfying objectives #2, #3, #4, and #5. **For specific details on the honors paper, see Explanation section below.**

III. Explanation of Honors Criteria:

Exam modifications: Although the student will take the same exams as the rest of the students in the classroom, exam curves will be handled differently. For any exam that has a curve in the normal class, the honors student's curve will be 5% less but no lower than 0%. This contributes to satisfying objective #2.

Participation expectations: Participation score in this class will still be 12% of the course grade. However, it will be assessed based not only on keeping up adequate attendance and arriving to class on a timely basis, but also on an assessment of an enhanced level of participation in classroom discussions and volunteering to answer questions. Importantly, the student will be allowed only 3 "unexcused" missed rolls (for classes less than two hours long, one roll sheet is used, while two rolls are done in each 3-hour class), whereas normal students are allowed 6. This contributes to satisfying objective #1.

Extra Credit limitations: In place of the two extra credit assignments allowed for non-Honors students, comprising up to 6% of a course grade, the Honors student will have one extra credit (due on the due date of the non-Honors "EC#2") that can either be a 4-page paper or a write-up on a star-party event and is worth 3%. This criterion supports objective #2.

Paper: For the Honors student, there is a research paper required, which is graded on an A-B-C-D-F system. This sort of paper will be of a scope that must require research at a major university library or other outside source not available on the Internet. It will require 15 or more pages, typed, double-spaced, an additional bibliography page, and a level of knowledge and understanding of the topic that is higher than that requested for the (extra credit) papers that are turned in by the non-Honors students. The paper will include a minimum of seven sources, four of which must not be Internet web pages. This assignment contributes to satisfying four of the listed honors learning objectives on this syllabus (2, 3, 4, 5).

Topic choices:

Galaxies, Including Their Dynamics and Evolution
How Stars Evolve from Birth Until Death
Exoplanets: Their Study and Methods of Discovery
Cosmology: The Origin of the Universe

Necessary Components of the Paper:

Introduction (5 points) – Introduce the topic. Sketch briefly the goals and content that the reader can expect in this paper.

Development (30 points) – Cover the history of the development of ideas that led to the current widely accepted theory guiding scientists today on the chosen topic. Consider the

order in which discoveries occurred and guided scientists toward our current understanding.

Principles (25 points) – Cover the physical principles important to the topic. Introduce the reader to the important laws of physics and the relevant theories needed to understand the topic.

Human Dimensions (12 points) – Include the human dimension. For instance, how are the principles and discoveries of this topic important to our daily lives and to possible future progress in society. If relevant, political, sociological, or economic areas can be explored. Also, if relevant, how is progress in the topic naturally fitting humankind's natural curiosity into its own origins?

Conclusion (6 points) – Review the important understandings reached during your coverage of the topic and indicate what final conclusions we can draw, including what confidence we is justified in some or all of these findings. There may be some conclusions which are less firm than others, and you can indicate this.

Grammar, punctuation (8 points). The paper should be spell-checked and proof-read. If desired, help can be sought with writing tutors on campus.

Illustration (6 points) - The paper should include at least two useful illustrations (diagram, chart, graph, or picture)

Depth (8 points) - Depth/extent of source material/investigation used in the production of the paper.

IV. Student Meetings: Initial meeting _____. Then again on _____. No other formal meetings will be required, unless revisions of the contract are requested by the school and need reviewing by the student. The student and instructor will informally conference during normal class break times and e-mail.

V. Evaluation Criteria: The honors student's evaluation criteria will differ from the non-honors version of the course. Specifically, for the honors student, an average of three exams will contribute 48.5% of the student's final course grade. Thus each of the three exams individually will be worth 16.25% of the course grade. Homework assignments will comprise 17.25%, participation will be 9%, and the remaining 25% of the course grade will be contributed by a grade on the student's research paper. The optional extra credit assignment is worth a 3% bonus.