MASTER SYLLABUS: PHY 107

1. **Course Information**
   - **College:** College of Science and Mathematics
   - **Department:** Physics
   - **Course Title:** Stars, Galaxies and Cosmos
   - **Course Designation and Number:** PHY 107
   - **GE Area(s):** Area V - Natural Sciences

   **Writing Intensive:** Yes _x_ No

   **Method(s) of Instruction:**
   - Lecture _x_
   - Discussion _x_
   - Web-enhanced ___
   - Web-only ___
   - Other ___

   **Includes Lab:** Yes ___ No ___
   - Three hours lecture, two hours lab

   **Prerequisites:** None

2. **Objectives**

   **GE Program Objectives:**
   - Sharpen critical thinking, problem solving and communication skills.
   - Learn about the aesthetic, ethical, moral, social, and cultural dimensions of human experience needed for participation in the human community.
   - Increase knowledge and understanding of the past, of the world in which we live, and of how both past and present have an impact on the future.

   **GE Area Five Objectives:**
   - Area Five courses emphasize scientific inquiry as a way to discover the natural world, and they explore fundamental issues of science and technology in human society.

   **Course Objectives and GE Learning Outcomes:**
   - The course will help students understand fundamental information about the universe. Topics include: the life cycle of stars, galaxy formation, and historical perspectives on discoveries that lead to our current understanding of the universe.

   - Understand the experimental basis of scientific inquiry
   - Understand the importance of model building for understanding the natural world
   - Understand the theoretical, practical, creative and cultural dimensions of scientific inquiry
   - Discuss some of the fundamental theories underlying modern science
   - Understand the dynamic interaction between society and the scientific enterprise
   - Recognize appropriate ethical uses of knowledge in the natural sciences

3. **Suggested Course Materials**
   - **Text:** Stellar Astronomy by Impey & Hartman
   - Class notes available on-line
   - **Lab Manual:** Stars, Galaxies, and the Cosmos (Department of Physics publication)

4. **Suggested Methods of Evaluation**
   - Three tests and two quizzes
   - Comprehensive Final Exam is required
5. **Grading Policy**

   All GE courses are graded A-F

   Grading scales will be announced after each exam. Grades will be assigned on the basis of total points earned during the quarter.

6. **Suggested Weekly Course outline Including Typical Assignments**

   Wk 1: Introduction Detecting Radiation In Space (Ch10)

   Wk 2: Read Ch 11 The Sun

   Wk 3: Read Ch 12, Properties of Stars

   Wk 4: Read Ch 13 Birth of Stars

   Wk 5: Read Ch 13 Death of Stars

   Wk 6: Read Ch 13 Death of Stars Ch 14 Milky Way Galaxy

   Wk 7: Read Ch 14 Milky Way Galaxy

   Wk 8: Read Ch 15 Expanding Universe

   Wk 9: Read Ch 17 Cosmology

   W 10: Finish Ch10 Cosmology

7. **Other**

   Syllabus distributed to students should employ the format approved by UCAPC and must include:
   - Instructor name, office hours, and contact information
   - Office of Disability Services information
   - Information on how grades will be determined
   - Attendance policy