Syllabus

Textbook: “Galactic Astronomy” by Binney & Merrifield (required)
“Galaxies in the Universe” by Sparke & Gallagher (optional)

Other Useful Texts: “Galactic Astronomy” by Mihalas & Binney

Purpose: This course is intended to be an introduction to Galactic astronomy for science majors. As such, a good working knowledge of mathematics including algebra, trigonometry, and calculus is assumed. Astronomy at the level of AST 3018/19 is preferred, but all of the relevant fundamentals of astronomy will be covered. Experience with computer programming in a relevant language (such as IDL, Python, or similar) will be advantageous. One of the goals of this class is to familiarize you with the components of the Milky Way galaxy and its neighbors in the Local Group. The approach will concentrate largely on the stellar populations of these systems, and the techniques used to study their chemical abundances, ages, and distances. This course will also introduce you to the scholarly literature in this field and endeavor to teach critical thinking in the evaluation of scientific results.

General Requirements: In-class socrative.com quizzes, two term projects, two term exams, one final.

Course Web Page: All materials will be placed on Canvas.

Grading Breakdown: 10% - class attendance and participation
40% - term projects
30% - term exams (Oct 7 and Nov 11)
20% - final exam (Dec. 17, 5:30 – 7:30pm, BRT 3)
(see http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html for more information)

General Guidelines: You are expected to do all of the reading as well as to keep up with it as the lectures are given. The lectures will follow the text but the two will not be entirely overlapping. The class assignments must be turned in at the beginning of class. Feel free to work together on the projects. The term exams will cover all of the material up to that point of the semester. The final exam will be cumulative.

Office Hours: Please email me directly to set up a time.
**Proposed Schedule of Lectures:** As the semester progresses and depending upon class interest, it may become necessary to deviate from this plan.

**Week #1:** Brief History of Galactic Astronomy  
Readings: Chapter 1

**Week #2:** Astronomical Measurements  
Readings: Chapter 2.1, 2.2, 2.3, and 2.5

**Week #3:** The Properties of Stars I  
Readings: Chapter 3.1, 3.3, 3.4

**Week #4:** The Properties of Stars II  
Readings: Chapter 3.5, 3.6, 3.7

**Week #5:** Evolution of Stars and Stellar Populations I  
Readings: Chapter 5.1

**Week #6:** Evolution of Stars and Stellar Populations II  
Readings: Chapter 5.2, 5.3, 5.4

**Week #7:** Star Clusters I  
Readings: Chapter 6.1

**Week #8:** Star Clusters II  
Readings: Chapter 6.2

**Week #9:** The Milky Way's ISM  
Readings: Chapter 9

**Weeks 10 & 11:** Components of the Milky Way  
Readings: Chapter 10.1, 10.2, 10.3