

AST 714 Astrophysics II

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Laws of physics applied to astrophysical situations. This course will primarily cover Radiative Transfer.
3 credits.

- Class MW 10:00-11:15 BPB 250.
- Office Hours MW 12:45-1:30 or by arrangement.
- Textbook “Radiative Processes in Astrophysics” by Rybicki and Lightman
- Homepage for course <http://www.physics.unlv.edu/~lepp/classes/ast714/index.html>
- Grading will be distributed among:
 - Homework - Quizzes. I will assign problems, unless stated otherwise, problems are due the next class period.
 - Project
 - Midterm Test. There will be a midterm roughly half way through the semester.
 - Final is on Monday May 8 at 10:10 AM

Week	Chapter	Subject
1	1	Fundamentals
3	2	Basic Teory
4	3	Moving Charges
5	4	Relativity
6	5	Bremsstrahlung
7	6	Synchrotron
7	7	Compton
8		Midterm
8	8	Plasma
9		Spring Break
10	9	Atoms
11	10	Lines
12	11	Molecules
14		Projects

Table 1: Chapters Covered — to be updated

Learning Outcomes

The students will have a broad understanding of Radiative Transfer processes in astrophysics. Particular skills will include applications of the following: Definitions, Bremsstrahlung, Synchrotron, Compton, Plasma, line emission from atoms and molecules.