Class Hours:
Wed: 2:00 - 3:30pm; Fri: 9:30 – 11:00am; CAS 502

Instructor
Dr. Manasvita Joshi
Email: mjoshi@bu.edu
Office Hours: Mon: 2:00-3:00pm, Wed: 11:00-12:00pm, Fri: 2:00-3:00pm
Office: CAS 416-D

Required Books
Radiative Processes in Astrophysics by Rybicki & Lightman (R&L). We will cover chapters 1-7 of R&L. However, the syllabus would dynamically evolve depending on the progress of the class. We will do some of the problems, at the end of each chapter of this book, in class. All of the solutions are available at the back of the book. I strongly encourage you to **not** refer to the solutions until we have attempted the problems in class.

Radiative Processes In High Energy Astrophysics by Gabriele Ghisellini available as a PDF here:
https://arxiv.org/abs/1202.5949

Reference Materials (on reserve in the library)
1. Frank Shu – The Physics Of Astrophysics, Volume 1, Radiation.
2. M. S. Longair – High Energy Astrophysics, Volume 1 & 2.
3. Carroll & Ostlie – An Introduction To Modern Astrophysics
4. http://www.cv.nrao.edu/course/astr534/PDFnew.shtml
5. Online material provided as handouts in class, as in when needed.

Reading Assignments and Homework and (30% of the grade)
We will have reading assignments and homework due at the beginning of class on Wednesdays.

Midterm (20%) and Final (30%)
We will have one midterm and a final exam. The midterm will take place during class hours on **Friday, October 21**.

In Class Problems (10% of the grade)
During class, we will break up into groups to work on R&L problems. Each student will turn in a sheet of paper with their solution, after which we will go over the true solutions in the back of R&L.

Class Project (10% of the grade)
At the end of the term each student will submit a summary of a process that involves radiative transfer. This will involve submitting a 3-4 page report written in LaTeX and creating a personal website using html & publishing the summary on the website. More details on writing the report and topics to choose from will be provided in the class. The project will be due on **December 9, 2016**.