LEVEL:

Böhm-Vitense, *Introduction to Stellar Astrophysics: Volume 2, Stellar Atmospheres*
Mihalas, *Stellar Atmospheres*
Gray, *Observations and Analysis of Stellar Photospheres*
Rybicki and Lightman, *Radiative Processes in Astrophysics*

SYLLABUS


III. Gray Atmospheres: Milne's equation. Two-stream and Eddington approximations. Emergent flux and limb darkening


V. Non-LTE: Rate: Rate equations. Radiative and collisional rates; departure coefficients. Calculation of Einstein coefficients and collision cross-sections.

VI. Continuum Opacity: Opacity sources in high-, intermediate-, and low-temperature stellar atmospheres.


VIII. Results and Comparison With Observations: Absolute energy distributions. The Balmer jump. Sample model atmosphere calculation. Flux distributions for sample model stars. Effect of absorption edges on atmospheric structure, line-blanketing, molecule formation.

IX. Mixing Length Theory: Convection and partial ionization zones. Simple phenomenological models.
