

PHYS 325 – ASTROPHYSICS I - SYLLABUS

- Credits: 3
- Prerequisites: Phys-242
- Designation: Required course for the Astrophysics option for a B.S. in Physics
- Course Description: Astrophysics is the application of physics to the Universe. This course begins with a review of relevant physics and then applies those concepts to the lives of stars. The subject matter includes stellar atmospheres, stellar interiors, star clusters, stellar evolution, variable stars, and compact objects.
- Course Goal: To understand the basic physical principles relevant to stars, their formation and evolution.
- Location / Time of lectures: Workman Center 310, Tuesday and Thursday, 15:00 – 16:15.
- Text: Astronomy – A Physical Perspective, 2nd edition, by Marc L. Kutner. Reading assignments are announced in class.
- Instructor: Dr. P. Hofner (Workman Center 307, Tel. x5233, email: peter.hofner@nmt.com)
- Office Hours: Feel free to look me up any time !
- Homeworks: There will be approximately 10 homework assignments, which are due in class after one week.
- Exams: There will be 3 partial exams; there is no final exam.
- Attendance: Students are expected to always attend class. Acceptable reasons for missing class include illness, travel to visit grad. schools, personal or family emergencies, special research opportunities, and field trips for work in other classes. Please notify me if you know you will be missing class.
- Grading: Grading is based on homework performance (40%), and the partial exams (3 x 20%).
- Course Schedule / Content: We will cover the first 13 chapters in the text. This includes a review of basic physical processes as relevant to

astrophysics (ch. 2, 3), telescopes and detectors (ch. 4), Binary Stars and the Sun (ch. 5, 6). We will also study Relativity Theory (ch. 7, 8), Stellar evolution from the Main Sequence to Supernova (ch. 9 – 11), and the evolution in close binaries (ch. 12) as well as star clusters (ch. 13).

Counseling and Disability Services:

Reasonable Accommodations

New Mexico Tech is committed to protecting the rights of individuals with disabilities. Qualified individuals who require reasonable accommodations are invited to make their needs known to the Office of Counseling and Disability Services (OCDS) as soon as possible. To schedule an appointment, please call 835-6619.

Counseling Services

New Mexico Tech offers mental health and substance abuse counseling through the Office of Counseling and Disability Services. The confidential services are provided free of charge by licensed professionals. To schedule an appointment, please call 835-6619.

Academic Honesty: New Mexico Tech's Academic Honesty Policy for undergraduate students is found starting on page 60 of the NMT Undergraduate Catalog, http://www.nmt.edu/images/stories/registrar/2014-2015_UNDERGRADUATE_Catalog_FINAL.pdf

New Mexico Tech's Academic Honesty Policy for graduate students is found starting on page 59 of the NMT Graduate Catalog, http://www.nmt.edu/images/stories/registrar/2014-2015_GRADUATE_Catalog_FINAL.pdf.

You are responsible for knowing, understanding, and following this policy.

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