## PHYS 567 – Special Problems in Astrophysics: The NH3 Molecule in Astrophysics

- Credits: 3
- Prerequisites: Knowledge of astrophysics comparable to the NMT Physics Dept. Astro I - IV series, and basic knowledge of atomic/ molecular physics at the level of Phys-443.
- Designation: Elective course for the Ph.D. degree in Physics with Dissertation in Astrophysics.
- Course Description: The NH3 molecule has been widely used in astrophysics as a probe of physical conditions and chemistry in a large variety of objects. In this course we will review the research literature including spectroscopy, history, observational techniques and analysis methods necessary for the use of this molecule in astrophysics.
- Course Goal: To enable the participants to begin research in astrophysics using the NH3 molecule. This includes knowledge of all fundamental publication in the subject.
- Location / Time of lectures: Workman Center 310, Wednesday Thursday, 14:00 – 15:55. Note: this is likely to change according to time constraints of participants.
- Text: Reading assignments from the research literature 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: These will consist of preparing research literature for presentation in class, as well as practical analysis and data reduction assignments.
- Grading: Grading will depend mostly on class participation.

## **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.

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

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

**<u>Respect Statement</u>:** New Mexico Tech supports freedom of expression within the parameters of a respectful learning environment. As stated in the New Mexico Tech Guide to Conduct and Citizenship: "New Mexico Tech's primary purpose is education, which includes teaching, research, discussion, learning, and service. An atmosphere of free and open inquiry is essential to the pursuit of education. Tech seeks to protect academic freedom and build on individual responsibility to create and maintain an academic atmosphere that is a purposeful, just, open, disciplined, and caring community."