# GEOL 442 Applied Geophysics

Instructor: Dennis L. Harry

Course Description:

- An introduction to modern geophysical exploration methods, including gravity, magnetic, seismic, electric, electromagnetic, and ground penetrating radar. Emphasis is on the use of these techniques in hydrocarbon and mineral exploration and environmental, engineering and archeological geophysics. The accompanying lab provides students with hands-on experience collecting geophysical data in the field, performing data reduction and analysis, and interpreting geophysical data to solve geological problems.

Learning Outcomes:

- Be able to use geophysical data to map subsurface geological features, evaluate aquifer systems, and locate buried man-made targets of engineering and archeological interest.
- Sufficiently versed in field techniques and data processing to critically evaluate the quality of the geophysical data and strengths and weaknesses of interpretations based on the data.