1. ME 4431W, Energy Conversion Systems Laboratory

2. 4 credits, 4 contact hours

3. Instructors: D. Kittelson, W. Northrop

4. Textbook: Not Applicable

5. Specific course information:
   b. Prerequisites: ME 3333, ME 4031W, ME upper division.
   c. Elective course for ME Students.

6. Course outcomes (related ABET student outcomes indicated in square brackets):
   a. An understanding of the basic performance of pumps and compressors. [1]
   b. An understanding of the performance and emissions of Diesel and spark ignition engines. [1,4]
   c. An understanding of basic cogeneration principles. [1,2]
   d. An understanding of good laboratory practice. [6]
   e. An ability to prepare effective written reports on the performance of energy conversion systems. [1,3,6]
   f. An ability to prepare and present effective oral reports on the performance of energy conversion systems. [1,3,6]

7. Course topics:
   a. Laboratory practice and reporting
   b. Pump and compressor performance.
   c. Spark ignition engine performance and emissions.
   d. Diesel engine performance and emissions.
   e. Cogeneration.