

1. Course number and name: **MEEN 4920 – Cooperative Education in Mechanical and Energy Engineering**
2. Credits and contact hours: **1-3 credits**
3. Instructor’s or course coordinator’s name: **Dr. Xiaohua Li**
4. Text book, title, author, and year: No Textbook is required
5. Specific course information
 - a. brief description of the content of the course (catalog description): **Supervised work in a job directly related to the student’s major, professional field of study or career objectives**
 - b. prerequisites or co-requisites: no specific prerequisites or co-requisites
 - c. indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program: not a required course; not an elective course; **credits** will not count for MEE degree plan.
6. Specific goals for the course:

| MEEN 4920 Course Learning Outcomes | ABET EAC Student Outcomes | | | | | | |
|--|---------------------------|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Students will execute projects related to some of one of the following: design, analysis, manufacturing, assembly and testing of mechanical engineering related system, and student will use knowledge gained through their previous mechanical and energy engineering courses. | X | | | | | | |
| Students will work in teams (from 2-person teams to large, multi-person, multi-discipline teams) to solve practical engineering problems and communicate their various activities (e.g., research, analysis; design; development, project planning, processing, etc) on a regular basis. | X | | | | | | |

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|---|---|--|--|--|--|--|--|
| Communicate industrially motivated problems and solutions | X | | | | | | |
| Understand thermodynamics Brayton cycles | X | | | | | | |
| Understand thermodynamics Refrigeration cycles | X | | | | | | |

7. Brief list of topics to be covered:

Dependent upon the precise nature of the cooperative education experience. At a minimum, the student is expected to be exposed to:

- Company/Organization operation
- Engineering related training and experience
- Organizational safety training
- Industrially accepted practices in a broad area of mechanical engineering.