Course: ME 48800 – Mechanical Engineering Design II

Cross-listed Course: ENGR 41100 – Interdisciplinary Engineering Design II

Type of Course: Required for ME program

Catalog Description: Continuation of ME 48700

Credits: 3

Contact Hours: 3

Prerequisite Courses: ME 48700

Corequisite Courses: None

Prerequisites by Topics: Mechanical Engineering Design I

Textbook: None

Course Objectives: To develop capabilities of students to solve real-life problems. Students have to apply knowledge from their previous course work to accomplish projects formulation to prototype evaluation.

Course Outcomes: Students who successfully complete this course will have demonstrated an ability to:

1. Identify the various parameters that need to be determined in order to evaluate the prototype with the basic design that was obtained in the first semester. (2)
2. Build test and evaluate the basic design completed in the first semester. (2)
3. Function within a team. (5)
4. Present his/her work both written and orally. (3)
5. Be knowledgeable of contemporary issues. (4)
6. Understand ethical issues that are associated with the engineering profession. (4)
7. Understand the societal impact of engineering. (4)
8. Recognize the need for life-long learning. (7)
### Lecture Topics

1. Introduction
2. Knowledge of contemporary issues
3. The broad education necessary to understand the impact of engineering solutions in global and societal contexts
4. Recognition of the need for life-long learning
5. Understanding professional and ethical responsibility
6. Discussion related to oral presentations
7. Oral presentations

### Computer Usage

Low

### Laboratory Experience

Low

### Design Experience

High

### Coordinator

Hosni Abu-Mulaweh, Ph.D.

### Date

26 February 2018