• COURSE NAME & NUMBER : independent research, ME 195

• SEMESTER AND YEAR: Spring 2017

• INSTRUCTOR: Ala Qattawi

• STUDENT(S): Furkan Ozedirne

• NUMBER OF UNITS TO BE EARNED ¹ : 4

• MEETING SCHEDULE : Weekly

• TIME INVESTMENT PER UNITS EARNED: 2-3 hours per unit per week

• PROVIDE HERE A BRIEF SUMMARY OF THE MEETING SCHEDULE FOR THE INSTRUCTOR AND STUDENT: meeting weekly to discuss research study outcomes and set next week directions.

• THE WAY(S) A STUDENT(S) WILL SPEND HIS/HER TIME OUTSIDE OF MEETINGS WITH INSTRUCTOR: assisting in lab experiment, paper wirings, literature review, and data analysis.

• THE AVERAGE NUMBER OF HOURS OF WORK PER WEEK NEEDED TO EARN THE NUMBER OF UNITS INDICATED ABOVE AND ACHIEVE THE LEARNING OUTCOMES OUTLINED BELOW. ² : 7-12 hours per week

• COURSE GOAL(S):

Introduce numerical and experimental research methods for manufacturing applications. Provide an introduction about scientific papers writing, literature review and how to establish scientific studies

• COURSE LEARNING OUTCOMES:

1. Generate an experiment design plan
2. Report the advancement found in literature in a certain research topic.
3. Review and validate available publications in the scientific community.
4. Perform mechanical analysis of components based on strength/material type/loading

• GRADING: Grading is as follows

1. Weekly meeting/lab attendance: 20%
2. Specimens’ fabrication: 30%
3. Report/paper writing: 50%

¹ One unit is equal to 45 hours of work per semester as per the UC Merced Credit Hour Policy. The outcomes outlined below should be consistent with the credits earned.

²This is important as it serves as a record for our accreditor that we are adhering to our Credit Hour Policy when awarding units toward the degree. Laura E. Martin, PhD, ALO, December 2016