**I.** **COURSE** **TITLE**: Design Research Project

**COURSE** **NUMBER**: 2299  **CATALOG** **PREFIX**: ENDS

 **II.** **PREREQUISITES**: Final quarter standing as a major in Engineering Design

 **III.** **CREDIT** **HOURS**: 3 **LECTURE** **HOURS**: 3

**LABORATORY** **HOURS**: 0  **OBSERVATION** **HOURS**: 0

**TOTAL CONTACT HOURS**: 3

 **IV.** **COURSE** **DESCRIPTION**:

A capstone course of independent study resulting in a technical report, research paper, project, or a combination of these. Selection of the area of study is made in consultation with, and must be approved by, the instructor.

 **V.** **ADOPTED** **TEXT(S)**:

 None

 **VI.** **COURSE** **OBJECTIVES**:

The student will be expected to demonstrate the ability to plan, execute and successfully complete a project of the level of complexity expected of an engineering technician in the workplace.

For example:

At the completion of this course the student will present a technical report, research paper, or project that will demonstrate the ability to:

 1. Write a successful research paper in MLA format and present it to the class.

2. Complete a project, solve or report on the solution to an engineering problem in a related area of engineering design technology. Theory and calculations supporting the conclusion must be included and sources properly cited.

3. Illustrate the solution demonstrating graphical methods learned in the ENDS program.

**VII.** **COURSE METHODLOGY:**

 Course is a combination of in-class lecture and independent study at the

discretion of the instructor

**VIII.** **GRADING**:

 Grading follows the policy in the college catalog, typically:

 90 – 100 = A

 80 – 89 = B

 70 – 79 = C

 60 – 69 = D

 0 – 59 = F

**IX**. **COURSE** **OUTLINE**:

Weekly meetings with the instructor. An example outline follows:

 WEEK TOPIC MATERIAL:

 1 Introduction

2 The Research Process

 3 Topic Selection

 4 Rough Bibliography

 5 Rough Outline

 6 Rough Draft

 7 Review Rough Draft

 8 Review Progress

 9 Review Progress

 10 Review Progress

 11 Review Progress

12 Review Progress

 13 Review Final Draft

 14 Final Report/Project Due

 15 Presentation of Report/Project To The Class

**X**. **OTHER** **REQUIRED** **BOOKS, SOFTWARE** **AND** **MATERIALS**:

 None

**XI.** **EVALUATION**:

 Dependent on the project.

 **XII.** **SPECIFIC** **MANAGEMENT** **REQUIREMENTS**:

All assignments, project, and presentation must be completed on time.

Students may work on their own time to complete the assignment.

Cad lab will have hours available to the student.

**XIII.** **OTHER INFORMATION:**

 **FERPA:** Students need to understand that your work may be seen by others. Others may see your work when being distributed, during group project work, or if it is chosen for demonstration purposes.

 Students also need to know that there is a strong possibility that your work may be submitted to other entities for the purpose of plagiarism checks.

 **DISABILITIES:** Students with disabilities may contact the Disabilities Service Office, Central Campus, at 800-628-7722 or 937-393-3431