

University of Arkansas – Fort Smith
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General Syllabus

CGT 299V CGT: Special Projects

Credit Hours: 1-3

Lecture Hours:

Lab Hours:

Prerequisite: Consent of department head

Effective Semester: Summer I 2013

I. Course Information

A. Catalog Description

For the advanced CGT student who has completed or is enrolled in all other appropriate CGT courses. A learning contract must be prepared and agreed upon by the student, the faculty advisor and the department head. May be repeated for a total of eight hours.

B. Additional Information

The student will design and prepare a complete set of engineering drawings for a project agreed upon by the student and course instructor. The project includes appropriate research, analysis, design calculations and consideration of manufacturing standards used in producing equipment in industry. This course is intended to expose the student to an industry environment as well as giving him experiences working independently to complete a project.

II. Student Learning Outcomes

A. Subject Matter

Upon completion of this course, the student will be able to:

1. Research, develop and provide solutions to hardware design and manufacturing problems that are assigned by the instructor. Work is to be completed in accordance with defined standards, in the semester assigned, using available resources of the CGT lab.
2. Prepare a complete set of engineering/manufacturing drawings required to build a product.
3. Develop a plan and schedule completion of tasks.

B. University Learning Outcomes

Communication Skills

Students will develop skills in communicating with their supervisors concerning their work and the work environment. Students will be prepared to present their drawings or other work products to their supervisors and instructor.

Technological Skills

Students will use software applications to transfer technical principles, ideas and theories to new situations. Students will create examples, apply principles, and/or demonstrate an ability or skill in the creation of working drawings, specifications and other industry specific applications using the software available for the specific project.

Quantitative Reasoning

Students will be required to apply accurate dimensioning principles to all working drawings that are completed. Students will be required to complete the quantitative reasoning required in computing text height, line type scale, dimension scale and print scale.

III. Major Course Topics**A. Professional Knowledge**

1. Individualized for each course.

B. Visualization Skills

1. Individualized for each course.