SAM HOUSTON STATE UNIVERSITY

COLLEGE OF ARTS AND SCIENCES

DEPARTMENT OF AGRICULTURAL AND INDUSTRIAL SCIENCES

TECHNOLOGY PROGRAM

COURSE DESCRIPTION

DESCRIPTIVE GEOMETRY

IT 171

FALL 2007

COLLEGE OF ARTS AND SCIENCES

Course Description

DEPARTMENT: Technology

COURSE NUMBER TITLE: IT 171 - Descriptive Geometry

INSTRUCTOR: Dr. Nedom C. Muns

TEXT: James H. Earle and Others. *Engineering Design Graphics. Latest Ed., Addison* Wesley.

COURSE OBJECTIVES:

This course is designed to provide the basic fundamental principles and theories of descriptive geometry. At the conclusion of this course the student will have gained appropriate knowledge about and be able to correctly demonstrate appropriate examples of:

1. spatial relationships
2. primary and secondary auxiliary views
3. revolutions
4. vector analysis
5. intersections
6. developments
7. graphical data analysis procedures

COURSE FORMAT:

The course will be a combination of lecture, student discussion, demonstrations, in-class problem solving and student inquiry. Because one of the primary purposes of this course is to develop an insight and working knowledge of correct and acceptable drafting standards in Descriptive Geometry, each student will be required to individually complete a series of drawing projects. Drawing projects will include manual and/or CAD drafting techniques as appropriate to the problem. Each problem will have a specific date for completion as shown on a separate assignment sheet handout.

COURSE OUTLINE:

The course will generally consist of units on the following topics; however the order of presentation is subject to change based on the individual paper and computer assignment arrangements.

Integral to all units
    a. Lettering
    b. Line Work
    c. Multiview projection

1. Spatial Relationships
    a. Points
    b. Lines
    c. Planes

2. Auxiliary Views and Revolutions
    a. Primary
    b. Secondary
    c. Revolutions

3. Vector Analysis
    a. Coplanar, Concurrent Forces
    b. Graphical analysis

4. Intersections and Developments
    a. Intersections
    b. Developments

5. Data Analysis
    a. Emiprical Equations*
    b. Graphical Differentiation*
    c. Graphical Integration*
    d. Nomograms

* Dependent upon class progress.

COURSE EVALUATION.

Periodic 15 minute timed quizzes dealing with specific topics within units will be given during the semester. Several will be announced; others will not. Each student will also be required to complete all assignments on the separate assignment sheet. Grades will be awarded according the following participation percentages:
Grading: Unit exams   30%

Student Projects	60%
Final Exam	10%

RECOMMENDED OR REQUIRED READING:

1. Text
2. Any Drafting textbook containing descriptive geometry information.

DISABLED STUDENT POLICY:

"Students with a disability which affects their academic performance are expected to arrange for a conference with the instructor in order that appropriate strategies can be considered to ensure that participation and achievement opportunities are not impaired." The physically impaired may contact the Director of the Counseling Center as chair of the Committee for Continuing Assistance for Disabled students by telephone (extension 1720).

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