SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY SAULT STE MARIE, ON



COURSE OUTLINE

Course Title: BLUEPRINT READING I & II

<u>Code No.</u>: ASR101 <u>Semester</u>: 1

Program: AIRCRAFT STRUCTURAL REPAIR

Author: STEVE LACHOWSKY

Date: November 2000 Previous Outline Date: June 1999

Approved: _____

Dean

Date

Total Credits:4Prerequisite(s):Length of Course:4 Hrs./Wk.Total Credit Hours:72

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ASR101

COURSE NAME

COURSE NUMBER

I. COURSE DESCRIPTION:

Students will be assigned blueprint reading assignments. Using textbooks and in-class instruction, students will develop the skills to read aircraft blueprint drawings. Aircraft blueprints will be examined and assignments will be submitted by students in the form of an in-class presentation and discussion.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

(Generic Skills Learning Outcomes placement on the course outline will be determined and communicated at a later date.)

Upon successful completion of this course the student will demonstrate the ability to:

1) Research and discuss blueprint terminology, line identification symbols, various tolerances and proper maintenance of drawings.

Potential Elements of the Performance:

- research and discuss blueprint terminology, line identification symbols, various tolerances and proper maintenance of drawings
- define the various terms used in blueprint reading
- identify the various types of lines and symbols used in blueprints
- discuss the importance of Title Blocks, Bill of Materials, and Revision Blocks
- discuss the various types of tolerances such as minus, positive and total tolerance
- discuss the importance of proper care of blueprints and correct filing of blueprints after being used
- 2) Extract specific information found in drawings such as components, part numbers, station location of components, quantity of parts, aircraft approvals and revisions.

Potential Elements of the Performance:

- identify components found on aircraft blueprints
- identify using the title block the number of components used to assemble the antenna
- identify part numbers associated with the installation
- describe the location of the antenna installation
- discuss any revisions associated with this blueprint
- identify using the Title Block, the personnel responsible for this blueprint
- identify the type of blueprint
- identify which aircraft this blueprint is associated and approved for

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II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE (Continued)

3) Discuss and complete textbook assignments #1 and #2 associated with blueprint types, blueprint abbreviations, scales and symbols. Assignments #1 and #2 must be completed prior to classroom presentation.

Potential Elements of the Performance:

- identify the three most commonly used blueprints found in aircraft structural repair
- describe the information a blueprint must have to be understandable
- discuss orthographic projection drawings
- describe the various views associated with orthographic projection
- identify material symbols
- discuss various abbreviations used in blueprint reading
- discuss blueprint scales and baseline dimensioning
- describe internal and external thread dimensioning associated with blueprint reading
- complete assignments #1 to #25 found in the student textbook titled "Basic Blueprint Reading and Sketching"

III. TOPICS:

- 1) Blueprint Identification and Terminology
- 2) Blueprint structural components identification and requirements

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

A/C65-9A Basic Blueprint Reading & Sketching (5th Edition) Teacher Handouts

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V. EVALUATION PROCESS/GRADING SYSTEM

 Test (1) Part 'A' - Multiple Choice - Part 'B' - Aircraft Drawings

 GRADING:

 A+ (94-100)
 B (78-85)

 A (86-93)
 C (70-77)

 R Repeat

VI. SPECIAL NOTES:

- Special Needs

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 so that support services can be arranged for you.

- Retention of Course Outlines It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.
- Disclaimer for Meeting the Needs of the Learners
- Substitute Course Information is available at the Registrar's Office.
- Course Note: Assignments not complete as per instructor guide lines will automatically reduce the final grade by 10%

VII. PRIOR LEARNING ASSESSMENT

Students who wish to apply for advanced credit in the course should consult the instructor.