## SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

## SAULT STE. MARIE, ONTARIO

## COURSE OUTLINE

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|---|---|---|---|
| **COURSE TITLE:** | BLUEPRINT READING I & II | | |
| **CODE NO. :** | ASR101 | **SEMESTER:** | 1 |
| **PROGRAM:** | AIRCRAFT STRUCTURAL REPAIR TECHNICIAN | | |
| **AUTHOR:** | PAUL DAVIS | | |
| **DATE:** | September 2016 | **PREVIOUS OUTLINE DATED:** | September 2015 |
| **APPROVED:** | *"Colin Kirkwood"* **DEAN** | | |
| **TOTAL CREDITS:** | 4 | | |
| **PREREQUISITE(S):** | n/a | | |
| **HOURS (Total):** | 64 | | |


For additional information, please contact Colin Kirkwood, Dean,
School of the Environment, Technology and Business
705-759-2554, Ext. 2688

## 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:

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

***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:

Teacher Handouts
Aviation Maintenance Technician Handbook FAA-H-8083-30
Basic Blueprint Reading and Sketching Book

## V. EVALUATION PROCESS/GRADING SYSTEM

Test 4A - Multiple Choice – worth 25% of final grade
Test 4B – Blueprints – worth 50% of final grade
Test 4C – Multiple choice – worth 25% of final grade

**Note:**

**Students in the Aircraft Structural Repair Program require a minimum of seventy (70) percent in a course to obtain a passing grade. This equates to a “B” grade.**

The following semester grades will be assigned to students:

| Grade | Definition | *Grade Point Equivalent* |
|---|---|---|
| A+ | 90 – 100% | 4.00 |
| A | 80 – 89% | |
| B | 70 - 79% | 3.00 |
| C | 60 - 69% | 2.00 |
| D | 50 – 59% | 1.00 |
| F (Fail) | 49% and below | 0.00 |

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|---|---|
| CR (Credit) | Credit for diploma requirements has been awarded. |
| S | Satisfactory achievement in field /clinical placement or non-graded subject area. |
| U | Unsatisfactory achievement in field/clinical placement or non-graded subject area. |
| X | A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. |
| NR | Grade not reported to Registrar's office. |
| W | Student has withdrawn from the course without academic penalty. |

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

## VI. SPECIAL NOTES:

Attendance:
Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

Course attendance is mandatory. If a student is absent, he/she must have a valid reason – documentation is required.

Students having missed more than 5 percent of the program through absences, shall not qualify for experience credit from Transport Canada, and will not be granted make-up or re-write options for theory tests and shop projects.

If a student is absent for all of the in-class theory or shop demonstrations for which a test/project is assigned, he/she will not be granted permission to complete the test/project.

It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will not be granted admission to the room.

## VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located in D2L and on the portal form part of this course outline.