SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

Sault College

COURSE OUTLINE

COURSE TITLE:	Aircraft Structural Repair		
CODE NO. :	ASR 130	**SEMESTER:**	2
PROGRAM:	Pre Trades & Technology		
AUTHOR:	Steve Lachowsky		
DATE:	Jan 08	**PREVIOUS OUTLINE DATED:**	Jan 07
APPROVED:			

_____ _____

CHAIR **DATE**

TOTAL CREDITS:	3
PREREQUISITE(S):	NIL
HOURS/WEEK:	3 Hrs./ Wk

I. COURSE DESCRIPTION: This course will introduce the students to subjects pertaining to aircraft structural repairs. Students will received a combination of theory and lab instruction. Projects in the lab will coincide with the theory instructed by the two instructors presenting this course. The main subjects will include riveting, rivet removal, rivet layout procedures, terminology associated with riveting, hand tool operations, bending and forming operations, aircraft systems and major structures, composite introduction and shop safety.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Complete riveting operations using both universal and countersink rivet.

2. Complete rivet layout procedures using formulas discussed and presented in class.

3. Complete dimpling operations and rivet removal methods.

4. Complete bending of aluminum sheet metal into various shapes and sizes using calculations, formulas and drawings.

5. Identify various aircraft fuselage major structural components and understand the purpose of flight controls.

6. Special Fastener Installations

7. Research and explain composite terminology, materials and repair procedures. Complete vacumn bagging procedures and wet lay up repairs

III. TOPICS:

1. Riveting and Special Fasteners
2. Composites and Composite repairs
3. Structural Components
4. Theory of Flight including Systems and Flight Controls
5. Bend Calculations and Forming Operations
6. Special Fastener Installations

IV. REQUIRED RESOURCES/TEXTS/MATERIALS: Textbook Supplied, Safety Glasses, Steel 12 inch ruler, Calculator

V. EVALUATION PROCESS/GRADING SYSTEM:
<give breakdown of tests/assignments and their weights relative to calculating the final grade for the course>
The students will be assessed using a combination of quizzes(3), final examination and lab projects completed. The quizzes will be weight in at 20% of the final mark, 30% final examination and the lab projects will be weighted in at 50% of your final mark. All lab projects must be completed to obtain a passing grade in this course.

Any student missing quizzes or testing dates will automatically receive zero for that quiz or test missed for unexcused absences.

Students missing tests or quizzes for legitimate reasons will be rescheduled for testing at the discretion of the instructors in voled with the testing.

Although attitude and class participation are not graded, students may be terminated based on their performance in this area.

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

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.

VI. SPECIAL NOTES:

Special Needs:
If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Special Needs office. Visit Room E1101 or call Extension 703 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 postsecondary institutions.

Plagiarism:
Students should refer to the definition of "academic dishonesty" in *Student Rights and Responsibilities*. Students who engage in "academic dishonesty" will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:
The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

<*include any other special notes appropriate to your course*>

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. DIRECT CREDIT TRANSFERS:

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.