



COURSE OUTLINE

ASR109

Prepared: Paul Davis Approved:

Course Code: Title	ASR109: PLASTICS & SEALANTS
Program Number: Name	4067: AIRCRAFT STRUCT TECH
Department:	AIRCRAFT STRUCTURAL REPAIR
Semester/Term:	18W
Course Description:	The proper methods used to manufacture and repair aircraft plexiglass parts will be learned through a combination of in-class theory and shop demonstrations. Various types of aircraft sealants will be discussed.
Total Credits:	2
Hours/Week:	2
Total Hours:	32
Vocational Learning Outcomes (VLO's):	<p>4067 - AIRCRAFT STRUCT TECH</p> <p>#2. Demonstrate a working knowledge of the principles of aircraft design by applying theory and shop practice.</p> <p>#4. Read and follow blueprint, shop drawings and manufacturer's manuals necessary in all manufacturing and overhaul facilities.</p> <p>#6. Carry out any repair according to specifications, stated job procedures and the requirements of the Department of Transport Regulations.</p>
Essential Employability Skills (EES):	<p>#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>#2. Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>#4. Apply a systematic approach to solve problems.</p> <p>#5. Use a variety of thinking skills to anticipate and solve problems.</p> <p>#6. Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>#7. Analyze, evaluate, and apply relevant information from a variety of sources.</p> <p>#10. Manage the use of time and other resources to complete projects.</p> <p>#11. Take responsibility for ones own actions, decisions, and consequences.</p>
Course Evaluation:	Passing Grade: 70%, B
Other Course Evaluation &	Grade

Assessment Requirements:

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 W Student has withdrawn from the course without academic penalty.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Assignments	10%
Test #17	45%
Test #25	45%

Course Outcomes and Learning Objectives:**Course Outcome 1.**

Select and describe plastic groups, form drill and saw plastics and complete permanent or temporary repairs.

Learning Objectives 1.

- identify and describe the common groups of plastics
- demonstrate general handling and storage procedures for plastics
- demonstrate approved cleaning and maintenance procedures dealing with plastics
- discuss the various methods of forming plastics
- describe single and compound curve forming of plastic sheets
- identify the various methods of cementing plastics
- discuss the types of transparent plastics found on aircraft
- explain the difference between thermo plastics and thermo setting plastics
- identify the advantages and disadvantages of plexiglass Vs glass wind screens
- identify transparent plastics and laminated plastics
- discuss safety precautions associated with mixing glues and repair chemicals used to

repair
plastics

Course Outcome 2.

Select proper sealants for repairs by reading charts, remove old sealants, mix and apply sealants to various repairs, discuss pressure sealing and understand the personal safety requirements.

Learning Objectives 2.

- describe the term structural sealing and how it applies to various sections of an aircraft structure
- identify the various sealants required for a repair by referring to charts
- remove sealants as per assignments
- complete various types of sealant repairs
- discuss various terms associated with sealants
- discuss “pressure sealing” of aircraft structures
- identify and operate the equipment used to apply sealants to aircraft structures
- identify one part sealants and two part sealants
- describe when sealants should be replaced
- discuss personal safety precautions when mixing or applying aircraft sealants

Date:

Monday, December 18, 2017

Please refer to the course outline addendum on the Learning Management System for further information.