



## COURSE OUTLINE: ASR101 - BLUEPRINT READING

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Approved: Corey Meunier, Chair, Technology and Skilled Trades

<b>Course Code: Title</b>	ASR101: BLUEPRINT READING
<b>Program Number: Name</b>	4067: AIRCRAFT STRUCT TECH
<b>Department:</b>	AIRCRAFT STRUCTURAL REPAIR
<b>Semesters/Terms:</b>	19F
<b>Course Description:</b>	Using textbook assignments and in-class instructions, students will develop the skills to interpret, read and understand aircraft blueprints. Various aircraft company blueprints will be examined in group like sessions and presented by students. Terminology associated with these blueprints will also be researched and presented.
<b>Total Credits:</b>	4
<b>Hours/Week:</b>	4
<b>Total Hours:</b>	64
<b>Prerequisites:</b>	There are no pre-requisites for this course.
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>	<b>4067 - AIRCRAFT STRUCT TECH</b>
<b>Please refer to program web page for a complete listing of program outcomes where applicable.</b>	VLO 2 Demonstrate a working knowledge of the principles of aircraft design by applying theory and shop practice.
	VLO 4 Read and follow blueprint, shop drawings and manufacturer's manuals necessary in all manufacturing and overhaul facilities.
	VLO 6 Carry out any repair according to specifications, stated job procedures and the requirements of the Department of Transport Regulations.
	VLO 13 Fabricate sheet metal parts with the use of shop equipment and manuals.
<b>Essential Employability Skills (EES) addressed in this course:</b>	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
	EES 4 Apply a systematic approach to solve problems.
	EES 5 Use a variety of thinking skills to anticipate and solve problems.
	EES 6 Locate, select, organize, and document information using appropriate technology and information systems.
	EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.
	EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.
	EES 10 Manage the use of time and other resources to complete projects.
	EES 11 Take responsibility for ones own actions, decisions, and consequences.
<b>Course Evaluation:</b>	Passing Grade: 70%, B
<b>Other Course Evaluation &amp; Assessment Requirements:</b>	Test 4A - Multiple Choice - worth 25% of final grade Test 4B - Blueprints - worth 50% of final grade



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Test 4C - Multiple choice - worth 25% of final grade

**Books and Required Resources:**

Aviation Maintenance Technician Handbook  
ISBN: 978-1-56027-716-3

Basic Blueprint Reading and Sketching  
ISBN: 9781435483781

**Course Outcomes and Learning Objectives:**

<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
1. Research and discuss blueprint terminology, line identification symbols, various tolerances and proper maintenance of drawings.	1.1 research and discuss blueprint terminology, line identification symbols, various tolerances and proper maintenance of drawings 1.2 define the various terms used in blueprint reading 1.3 identify the various types of lines and symbols used in blueprints 1.4 discuss the importance of Title Blocks, Bill of Materials, and Revision Blocks 1.5 discuss the various types of tolerances such as minus, positive and total tolerance 1.6 discuss the importance of proper care of blueprints and correct filing of blueprints after being used
<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
2. Extract specific information found in drawings such as components, part numbers, station location of components, quantity of parts, aircraft approvals and revisions.	2.1 identify components found on aircraft blueprints 2.2 identify using the title block the number of components used to assemble the antenna 2.3 identify part numbers associated with the installation 2.4 describe the location of the antenna installation 2.5 discuss any revisions associated with this blueprint 2.6 identify using the Title Block, the personnel responsible for this blueprint 2.7 identify the type of blueprint 2.8 identify which aircraft this blueprint is associated and approved for
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
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.	3.1 identify the three most commonly used blueprints found in aircraft structural repair 3.2 describe the information a blueprint must have to be understandable 3.3 discuss orthographic projection drawings 3.4 describe the various views associated with orthographic projection 3.5 identify material symbols 3.6 discuss various abbreviations used in blueprint reading 3.7 discuss blueprint scales and baseline dimensioning 3.8 describe internal and external thread dimensioning associated with blueprint reading 3.9 complete assignments #1 to #25 found in the student textbook titled Basic Blueprint Reading and Sketching



**Evaluation Process and Grading System:**

<b>Evaluation Type</b>	<b>Evaluation Weight</b>
Test #4A	25%
Test #4B	25%
Test #4C	50%

**Date:**

August 29, 2019

**Addendum:**

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

