

Virginia Western Community College

DRF 161

Blueprint Reading I

Prerequisites

None.

Course Description

Teaches the application of basic principles, visualization, orthographic projection, detail of drafting shop process and terminology, assembly drawings and exploded views. Considers dimensioning, changes, and corrections, classes of fits, tolerances and allowances, sections and convention in blueprint reading.

Semester Credits: 2 Lecture Hours: 1 Lab/Clinical/Internship Hours: 3

Required Materials

Textbook:

Welding Print Reading 7th Edition. ISBN 9781635636819.

Other Required Materials:

Basic calculator.

Course Outcomes

At the completion of this course, the student should be able to:

- Understand the purpose and use of blueprints.
- Check the prints for errors or discrepancies.
- Determine what materials are to be used and how and where these materials are to be used.
- Develop vocabulary and knowledge necessary to read and interpret blueprints and sketching.
- Understand the relationship of the drawn/written descriptions to the actual product.
- Effectively communicate with others in different industries. Understand the purpose and use of prints, specifications and building codes.
- In addition to the above description, this course introduces reading and interpreting various kinds of blueprints such as various manufacturing parts, assembly drawings, fabrication drawings, and welding shop drawings. You will also have the ability to do basic sketching for any of the types of drawings listed in the statement above. This course introduces reading and interpreting various kinds of blueprints such as various manufacturing parts, assembly drawings, fabrication drawings, welding shop drawings. You will also have the ability to do basic sketching for any of the types of drawings listed in the above statement.

Topical Description

Week	Date	Topic – Your Class notes will be important to tests	Text Reading	Test Schedule
1		Introduction to the course, outline of the class and information.		
2		Worldwide Graphic Language for Design / Layouts and Lettering	1, 2,3,4	Receive Test 1
3		Technical Sketching / Orthographic Projection	5,6,7,8,9,10	Return Test 1
4		Drawing Representation / Sectional Views	11,12,13,14	Lab Work
5		Auxiliary Views / Manufacturing Process	15,16,17,18	Receive Test 2
6		Dimensioning / Tolerancing	19,20,21,22	Return Test 2
7		Threads, Fasteners, and Springs / Working Drawings	26,27	Lab Work
8		Drawing Management / Axonometric Projection	28,29	Receive Test 3
9		Oblique Projection / Perspective Drawings	31,32,33	Return Test 3
10		Gears and Cams / Electronic Diagrams	34,35,36,37	Lab Work
11		Structural Drawings / Landform Drawings	38,39	Receive Test 4
12		Piping Drawings and Welding Presentation	40,41,42,43	Return Test 4
13		Reviewing different chapters for the final exam and class sketching projects	44,45,46	Lab Work
14		HOLIDAY BREAK (NO CLASSES)		
15		Class field trip to local companies. Reviewing different chapters for the final exam and class sketching projects		
16		Reviewing different chapters for the final exam and class sketching projects. Last Class Date: Final Exam Due 12/17 at class. (Late exams will not be accepted.) Turn in test and all handouts.		Final Exam Due:

17		Final Exams begin for other VWCC classes.		
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Notes to Instructors

1. Four tests are given and taken from chapters in the book and/or from the test bank that is given in the instructors guide. See class outline for more details.
2. Lab assignments are given from chapters in the book.
3. Some Lab assignments are used as quiz grades.
4. Exams are created using the test bank from the instructors guide.

[ADA Statement](#) (PDF)

[Title IX Statement](#) (PDF)