WLD - 141, Symbols & Specifications

DOL DISCLAIMER:

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Orientation and Introduction

Introduction

Concept Content:

[In this section you will give an introduction of yourself to your class. This is an opportunity to state your relevant experiences and credentials to teach this subject along with your personal background. This can help connect with students. You can make a video introduction and upload it to this page as well.]

Welding 141: Symbols & Specifications - This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

Course Syllabus

Concept Goals:

Read and interpret welding symbols, including orthographic and isometric print drawings.

Identify and explain various lines, notes, and specifications on a blueprint.

Identify the different types of lines on a blueprint.

Interpret destructive testing symbols and their methods.

Interpret non-destructive testing symbols and their methods.

Develop a working sketch.

Create a bill of materials from a blueprint.

Concept Content:

This is where you will upload the syllabus. You can do this either by uploading the syllabus text here or you can upload a copy of the syllabus under the resources tab for this section. If you do upload it to the resources, please be sure to give instructions to your students to look for the syllabus there. Or you can direct students to view the syllabus on the LMS your school uses.

Course Resources

Concept Goals:

You can leave this section blank provided you uploaded the student learning outcomes to the previous section.

Concept Content:

This is where you would outline student support resources such as tutoring services, listing your office ours, contact info for support for your college's learning management system, etc. If there are documents you wish to upload, be sure to upload them to the resources tab and give instructions for the students to find the documents there.

Course Overview

Concept Goals:

Read and interpret welding symbols, including orthographic and isometric print drawings.

1. Effectively use various measuring instruments, including tape measures, squares, protractors, and levels.
2. Using mathematics to solve problems.
3. Identify and explain various lines, notes, and specifications on a blueprint.
4. Interpret destructive testing symbols and their methods.
5. Interpret non-destructive testing symbols and their methods.
6. Develop a working sketch.
7. Create a bill of materials from a blueprint.

Concept Content:

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding. This course is important foundational knowledge for your future success in welding. Many jobs you will have to do will require you to be able to read and interpret symbols to know what types of welds, weld angles, and other technical specifics a job might need.

Module	Module Learning Objectives
Module 1: Measurement	**Effectively use various measuring instruments, including tape measures, squares, protractors, and levels.** **Using mathematics to solve problems.**
Week 2: Intro to Blueprint Reading Pt 1	**Identify and explain various lines, notes, and specifications on a blueprint.**
Week 3: Intro to Blueprint Reading Pt 2	**Identify and explain various lines, notes, and specifications on a blueprint.**
Module 4: Fillet Weld Symbols Pt 1	**Identify and explain various lines, notes, and specifications on a blueprint.** **Read and interpret welding symbols, including orthographic and isometric print drawings.**
Week 5: Fillet Weld Symbols Pt 2	**Identify and explain various lines, notes, and specifications on a blueprint.** **Read and interpret welding symbols, including orthographic and isometric print drawings.**
Week 6: Spot, Plug, and Seam Weld Symbols Pt 1	**Identify and explain various lines, notes, and specifications on a blueprint.** **Read and interpret welding symbols, including orthographic and isometric print drawings.**
Week 7: Spot, Plug, and Seam Weld Symbols Pt 2	**Identify and explain various lines, notes, and specifications on a blueprint.** **Read and interpret welding symbols, including orthographic and isometric print drawings.**
Week 8: Mid-Term Exam	**Demonstrate knowledge of course content via a mid-term exam.**
Week 9: Groove Weld Symbols Pt 1	**Identify and explain various lines, notes, and specifications on a blueprint.** **Read and interpret welding symbols, including orthographic and isometric print drawings.**
Week 10: Groove Weld Symbols Pt 2	**Identify and explain various lines, notes, and specifications on a blueprint.** **Read and interpret welding symbols, including orthographic and isometric print drawings.**
Week 11: Non-Destructive Inspection Symbols Pt 1	**Interpret non-destructive testing symbols and their methods.**
Week 12: Non-Destructive Inspection Symbols Pt 2	**Interpret non-destructive testing symbols and their methods.**
Week 13: Developing a Working Sketch Pt 1	**Develop a working sketch.** **Create a bill of materials from a blueprint.**
Week 14: Review of Course Material	**Briefly review course material in advance of the final exam.**
Week 15: Final Exam	**Demonstrate knowledge of course content via a final exam.**

Notes/Helpful Tips

Next Steps...

Your Census assignments are REQUIRED in order to remain in the class, and they MUST be completed prior to the Census Date **[insert census date here]**. **If you do not have a census date requirement, you can delete this section.**

Module 1 - Measurement

1.1 Module Overview

Concept Goals:

Effectively use various measuring instruments, including tape measures, squares, protractors, and levels.

Using mathematics to solve problems.

Concept Content:

An important part of welding and utilizing blueprints is the ability to do mathematics and use measuring instruments correctly. This week we will give a review on how to read various measuring instruments and work though math problems that you might come across in the shop.

A snapshot of this week's content:

Overview of Protractors Video

Related Math PowerPoint

Textbook:

Fractions

Decimals

symbols methods by letters.pdf AND symbols process by letters.pdf

This week's assignments:

Module 1 Review Quiz - 20 Questions

1.2 Module Content Resources

Concept Goals:

Effectively use various measuring instruments, including tape measures, squares, protractors, and levels.

Using mathematics to solve problems.

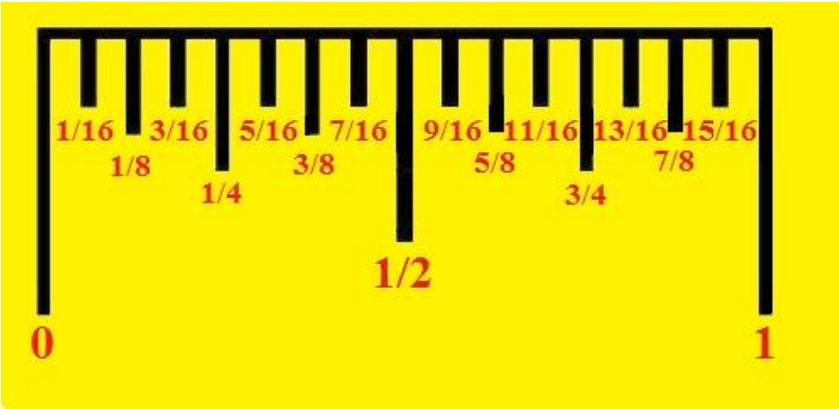
Concept Content:

Overview of Basic Measurement

Measuring tapes and rulers are some of the most important tools of the welder: learning them accurately is critical and becomes easier with practice.

Instructional Materials

1. Measurement Worksheet, measurement worksheet.pdf
2. Review this image:



Instructions

Follow the steps below when completing this assignment:

1. Download and complete the Measurement worksheet located in the Instructional Materials section above.
2. Refer to the image above when completing the worksheet.
3. You can either scan the worksheet or take a picture of your completed worksheet.
4. Then attach and upload the electronic copy or picture to the assignments tab. There will be a quiz there that will allow you to upload the file.

Overview of Protractors Video

Overview of Mathmatics

Please view the following PowerPoint that goes over the basics of mathmaetics: Related Math PowerPoint

Also, please read the following:

Fractions

Decimals

Textbook chapters provided by:

Donoghue, T. (2020) *Maths for Trades: Maths for Metal Fabrication Apprentices*

Galway: Galway and Roscommon Education and Training Board

Overview of Symbol Methods and Process

Read the following documents on welding abbreviations and glossary. You will be quizzed on this information.

Download and review the two abbreviations handouts by clicking on the links below:

symbols methods by letters.pdf AND symbols process by letters.pdf

1.3 Module Assessment/Assignment

Concept Content:

This week's assignments:

Module 1 Review Quiz - 20 Questions

1.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on

the material they have learned in this module. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. This can be a great way for students to give feedback on what they have learned and what might need to be expanded upon. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

1.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

1.6 Module Wrap-Up

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we reviewed some of the math basics that are needed for welding fabrication.

A snapshot of this week's content:

Overview of Protractors Video

Related Math PowerPoint

Textbook:

Fractions

Decimals

symbols methods by letters.pdf AND symbols process by letters.pdf

This week's assignments:

Module 1 Review Quiz - 20 Questions

Module 2 - Intro to Blueprint Reading Pt 1

2.1 Module Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Concept Content:

Oftentimes welding projects come on blueprints. Thus, knowing how to read a blueprint is a necessity. With all of the various lines and symbols, a blueprint can be intimidating to read at first. However, this module will go into a brief overview of how to read a blueprint. Afterwards, you should have more of a grasp on how blueprints work.

This week we will go over an introduction to blueprint reading. Please see the below list for this week's content.

This Week's Content:

Functions of Blueprints - 12 Pages

Basics of Welding Symbols -12 Pages

Industrial Blueprint Reading PowerPoint - 9 Slides

This Week's Assignment:

Module 11 Quiz - 7 Questions

2.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we will go over an introduction to blueprint reading. Please see the below list for this week's content.

This Week's Content:

Functions of Blueprints - 12 Pages - Located in Resource Tab

Basics of Welding Symbols -12 Pages - Located in Resource Tab

Industrial Blueprint Reading PowerPoint - 9 Slides - Located in Resource Tab

2.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This Week's Assignment:

Module 11 Quiz - 7 Questions - Located in Assignments Tab

2.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

2.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

2.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Concept Content:

This week we went over an introduction to blueprint reading. Please see the below list for this week's content.

This Week's Content:

Functions of Blueprints - 12 Pages

Basics of Welding Symbols -12 Pages

Industrial Blueprint Reading PowerPoint - 9 Slides

This Week's Assignment:

Module 11 Quiz - 7 Questions

Module 3 - Intro to Blueprint Reading Pt 2

3.1 Module Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Concept Content:

Oftentimes welding projects come on blueprints. Thus, knowing how to read a blueprint is a necessity. With all of the various lines and symbols, a blueprint can be intimidating to read at first. However, this module will go into a brief overview of how to read a blueprint. Afterwards, you should have more of a grasp on how blueprints work.

This week we will continue our introduction to blueprint reading. Please see the below list for this week's content.

Object Lines PowerPoint - 20 Slides - Located in Resources Tab

Other Views Textbook Unit - 7 Pages - Located in Resources Tab

How to Read Blueprint and Shop Drawings YouTube Video - 26.5 Minutes

This Week's Assignment:

Blueprint Test

3.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This Week's Content:

Object Lines PowerPoint - 20 Slides - Located in Resources Tab

Other Views Textbook Unit - 7 Pages - Located in Resources Tab

How to Read Blueprint and Shop Drawings YouTube Video - 26.5 Minutes

3.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This Week's Assignment:

Blueprint Test - Download the assignment from the resources tab and upload the completed worksheet to the assignments tab under quiz.

3.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

3.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

3.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Concept Content:

Oftentimes welding projects come on blueprints. Thus, knowing how to read a blueprint is a necessity. With all of the various lines and symbols, a blueprint can be intimidating to read at first. However, this module will go into a breif overview of how to read a blueprint. Afterwards, you should have more of a grasp on how blueprints work.

This week we will continue our introduction to blueprint reading. Please see the below list for this week's content.

Object Lines PowerPoint - 20 Slides - Located in Resources Tab

Other Views Textbook Unit - 7 Pages - Located in Resources Tab

How to Read Blueprint and Shop Drawings YouTube Video - 26.5 Minutes

This Week's Assignment:

Blueprint Test

Module 4 - Fillet Weld Symbols Pt 1

4.1 Module Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

Overview

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

We will spend the next four weeks covering Fillet weld symbols. Fillet welds are used to make lap joints, corner joints, and T joints. This symbol often appears as a right-angle or isosceles triangle. The perpendicular leg is always drawn on the left side of the symbol regardless of the position of the symbol above or below the reference line.

The following are the types of fillet weld symbols we will cover:
1. Continuous fillet
2. Intermittent fillet
3. Chain Intermittent fillet
4. Staggered Intermittent fillet

The next two modules will cover Fillet welds. Fillet welds are used to make lap joints, corner joints, and T-Joints. This symbol often appears as a right-angle or isosceles triangle. This perpendicular edge is always drawn on the left side of the symbol regardless of the position of the symbol above or below the reference line.

This Week's Assignments:

1.) Different Types of Fillet Welds Assignment.pdf

2.) Module 2 Quiz - 6 Questions

4.2 Module Content Resources

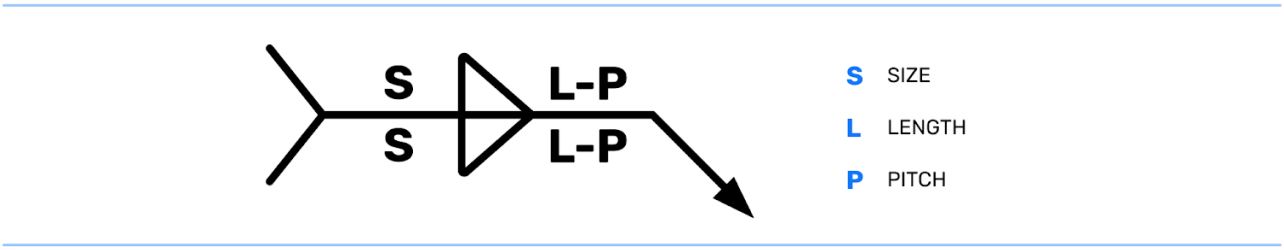
Concept Goals:

Outline the learning goals for this module here.

Concept Content:

FILLET WELDS

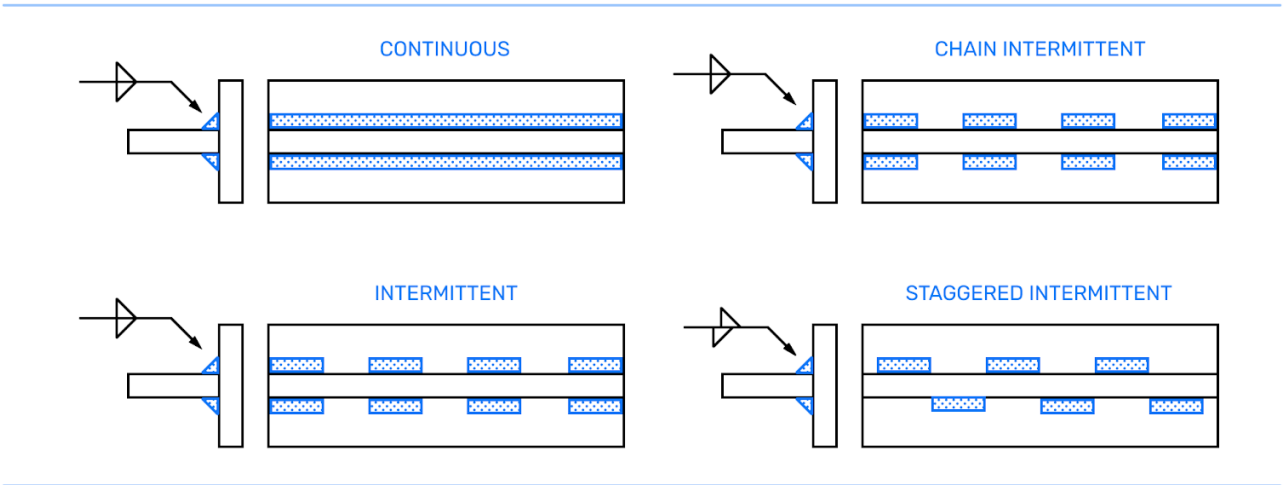
Fillet weld dimensions primarily consist of Size, Length & Pitch, as depicted in the diagram below. If “L” or “P” are not defined, the weld is meant to be continuous for the joint’s length.



Fillet weld applications include continuous or intermittent conditions. Intermittent fillet welds can be specified as chain or staggered. A Stitch Weld is a common nonstandard term for intermittent welds.

Chain intermittent layouts place the fillet welds opposite each other through the length of the joint.

Staggered intermittent layouts place the opposing fillet welds in a staggered position, where fillet welds are approximately centered between the gap on the joint’s opposite side.



FASSEN Welding Symbols, https://www.fassen.co/post/welding-symbols April 1, 2021

Video: How to Read Welding Symbols Pt 1

Last task to review the Anatomy of a Fillet Weld.docx worksheet.

4.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week will have two assignments:

1.) Different Types of Fillet Welds Assignment.pdf

2.) Module 2 Quiz - 6 Questions

4.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. This could allow students to give direct feedback on what they have learned

and what might need more elaboration. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

4.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

4.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

This week we began looking into reading fillet weld symbols. Next week we will continue looking into these symbols more in-depth.

As a reminder, this week's Assignments:

1.) Different Types of Fillet Welds Assignment.pdf

2.) Module 2 Quiz - 6 Questions

Module 5 - Fillet Weld Symbols Pt 2

5.1 Module Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This module is the last to cover Fillet weld symbols. Fillet welds are used to make lap joints, corner joints, and T joints. This symbol often appears as a right-angle or isosceles triangle. The perpendicular leg is always drawn on the left side of the symbol regardless of the position of the symbol above or below the reference line.

This week's content:

1.) The Fillet Weld PowerPoint located in the resources tab in 3.2

2.) Review the Anatomy of a Fillet Weld handout located in the resources tab in 3.2

3.) Video: Intro to Welding Symbols Fillet Welds

This week's assignments:

1.) Download and complete the WLD 141 Fillet Weld Symbols Worksheet 1.pdf

2.) Module 3 Quiz - 9 Questions

5.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's content will go over more details about fillet weld symbols and how to read them. It will also cover some more detail about fillet welds themselves and how they work.

Assigned Content:

Fill Weld Anatomy and Different Types:

1.) The Fillet Weld PowerPoint - 12 Slides - Located in Resources Tab

2.) Review the Anatomy of a Fillet Weld handout located in the resources tab.

3.) Video: Intro to Welding Symbols Fillet Welds

5.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's assignments are as follows:

1. Download and complete the WLD 141 Fillet Weld Symbols Worksheet 1.pdf
    - Once complete, upload to the assignments tab under test.
2. Module 3 Quiz - 9 Questions

5.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

5.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. This can also allow for students to give feedback on what they learned and what needs more elaboration. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

5.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

This week we wrapped up our study of fillet weld symbols. Next week we begin talking about spot, plug, and seam welds. This knowledge of reading and interpreting welding symbols is critical to your success in the welding industry.

This week's content:

1.) The fillet weld PowerPoint located in the resources tab in 3.2

2.) Review the Anatomy of a Fillet Weld handout located in the resources tab in 3.2

3.) Video: Intro to Welding Symbols Fillet Welds

This week's assignments:

1.) Download and complete the WLD 141 Fillet Weld Symbols Worksheet 1.pdf

2.) Module 3 Quiz - 9 Questions

Module 6 - Spot, Plug, and Seam Weld Symbols

6.1 Moudle Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

Overview:

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This is the first of two modules that will cover Spot, Plug, and Seam weld symbols. Plug and slot welds can be used to join overlapping pieces. This type of weld is drawn as a rectangle that is wider than it is tall on either side of the reference line.

This week's content:

Plug and Slot Weld PowerPoint - located in the resources tab - 8 slides

Chapter 8 - located in the resources tab

Plug and Slot Welds Video - 16.5 Minutes

This week's assignment:

Plug and Slot Worksheet

6.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we will start looking into both plug and slot welds.

This week's content:

Plug and Slot Weld PowerPoint - located in the resources tab - 8 slides

Chapter 8 - located in the resources tab

Plug and Slot Welds Video - 16.5 Minutes

6.3 Moudle Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's assignment:

Plug and Slot Worksheet

Download and print off the worksheet. Fill out the worksheet and upload a copy of it to the assignments tab under quizzes.

6.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

6.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

6.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

This week we began our look into spot and plug weld symbols. Next week we will look into seam and stud welds. Next week's section will have a quiz that covers content from both module 4 and 5.

This week's content:

Plug and Slot Weld PowerPoint - located in the resources tab - 8 slides

Chapter 8 - located in the resources tab

Plug and Slot Welds Video - 16.5 Minutes

This week's assignment:

Plug and Slot Worksheet

Module 7 - Spot, Plug, and Seam Weld Symbols Pt 2

7.1 Module Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

Overview

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This is the second of two modules that will cover Spot, Plug, and Seam weld symbols. Plug and slot welds can be used to join overlapping pieces. This type of weld is drawn as a rectangle that is wider than it is tall on either side of the reference line.

This week's content:

Spot Seem and Stud Welds PowerPoint - 9 slides

Seam Weld Video - 7 minutes

Stud Weld Video - 10.5 minutes

Assignment:

Module 4 & 5 Quiz - 10 Questions

7.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we will discuss dive into Seam and Stud welds.

This week's content:

Spot Seem and Stud Welds PowerPoint - located in the resources tab - 9 slides

Seam Weld Video - 7 minutes

Stud Weld Video - 10.5 minutes

7.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's assignment:

Module 4 & 5 Quiz - 10 Questions

7.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

7.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

7.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

This week we discussed Seam and Stud welds.

This week's content:

Spot Seem and Stud Welds PowerPoint - 9 slides

Seam Weld Video - 7 minutes

Stud Weld Video - 10.5 minutes

Assignment:

Module 4 & 5 Quiz - 10 Questions

Module 8 - Mid-Term Exam

8.1 Module Overview

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we will have our mid-term exam that covers the first seven weeks content. The exam is located in the assignments tab under test.

This week's assignment:

Mid-Term Exam - 23 Questions

8.6 Module Wrap-Up

Concept Content:

This week we had our mid-term exam to review the first seven week's content. Next week we move into the second half of the semester and will start with Non-Destructive Inspection Symbols

Module 9 - Groove Weld Symbols

9.1 Module Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This is the first of two modules that will cover Groove weld symbols. A groove weld is often used to make edge-to-edge joints. It can also be used for corner joints, T joints, and joints between curved and flat pieces. There are many different kinds of groove welds that each have their own unique symbol to represent them.

This week's content:

Groove Weld PowerPoint - 10 Slides

Groove Weld Textbook Chapter - 15 Pages

Assignments:

Module 6 Worksheet - 21 Questions

9.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we will begin discussing groove welding symbols.

This week's content:

Groove Weld PowerPoint - 10 Slides

Groove Weld Textbook Chapter - 15 Pages

Both are located in the resources tab.

9.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's assignment:

Module 6 Worksheet - 21 Questions - Located in the resources tab.

This worksheet will have you go over the various types of groove weld symbols. Once you have completed the worksheet, upload a copy of it to the assignments tab.

9.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

9.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

9.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This is the first of two modules that will cover Groove weld symbols. A groove weld is often used to make edge-to-edge joints. It can also be used for corner joints, T joints, and joints between curved and flat pieces. There are many different kinds of groove welds that each have their own unique symbol to represent them.

This week's content:

Groove Weld PowerPoint - 10 Slides

Groove Weld Textbook Chapter - 15 Pages

Assignments:

Module 6 Worksheet - 21 Questions

Module 10 - Groove Weld Symbols Pt 2

10.1 Module Overview

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This is the second of two modules that will cover Groove weld symbols. A groove weld is often used to make edge-to-edge joints. It can also be used for corner joints, T joints, and joints between curved and flat pieces. There are many different kinds of groove welds that each have their own unique symbol to represent them.

This week's content:

Groove Welds Workbook Chapter - 8 Pages

Introduction to Weld Symbols: Groove Symbols YouTube Video - 34.5 Minutes

This week's assignment:

Module 6 & 7 Quiz - 5 Questions

10.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we will continue our exploration into Groove Welds. This week we will also have a quiz that goes over the modules 6 & 7.

Groove Welds Workbook Chapter - 8 Pages

Introduction to Weld Symbols: Groove Symbols YouTube Video - 34.5 Minutes

10.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's assignment:

Module 6 & 7 Quiz - 5 Questions

10.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

10.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss

the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

10.6 Module Wrap-Up

Concept Goals:

Identify and explain various lines, notes, and specifications on a blueprint.

Read and interpret welding symbols, including orthographic and isometric print drawings.

Concept Content:

This week we conclude our section on Groove Weld Symbols. Next week we will have our mid-term exam which will go over the first seven weeks of this course.

This week's content:

Groove Welds Workbook Chapter - 8 Pages

Introduction to Weld Symbols: Groove Symbols YouTube Video - 34.5 Minutes

This week's assignment:

Module 6 & 7 Quiz - 5 Questions

Module 11 - Non-Destructive Inspection Symbols

11.1 Module Overview

Concept Goals:

Interpret non-destructive testing symbols and their methods.

Concept Content:

Each type of weld has its own symbol, which is drawn near the center of the reference line. These

symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This is the first of two modules that will cover Non-destructive inspection symbols.

This week's content:

Weld Inspection and Examination Chapter - 10 Pages

Inspection and Testing Chapter - 7 Pages

This Week's Assignment:

Module 9 Worksheet

11.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week we will start our module regarding non-destructive inspection symbols. These symbols indicate various ways that testing is done on welds once the welding itself is done.

This week's content:

Weld Inspection and Examination Chapter - 10 Pages - Located in Resources Tab

Inspection and Testing Chapter - 7 Pages - Located in Resources Tab

The chapters go over both non-destructive and destructive weld symbols. For this week's module, you are only responsible for reading the parts regarding non-destructive weld symbols.

11.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This Week's Assignment:

Module 9 Worksheet - Located in Resources Tab. Download and print out the worksheet and answer what each non-destructive testing method is indicated by the welding symbols.

11.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

11.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

11.6 Module Wrap-Up

Concept Goals:

Interpret non-destructive testing symbols and their methods.

Concept Content:

This week's content:

Weld Inspection and Examination Chapter - 10 Pages

Inspection and Testing Chapter - 7 Pages

This Week's Assignment:

Module 9 Worksheet

Module 12 - Non-Desctructive Inspection Symbols Pt 2

12.1 Module Overview

Concept Goals:

Interpret non-destructive testing symbols and their methods.

Concept Content:

Each type of weld has its own symbol, which is drawn near the center of the reference line. These symbols can appear on one or both sides of the reference depending on the project and what welds need to be completed.

This is the second of two modules that will cover Non-destructive inspection symbols.

This Week's Content

Non-Destructive Inspections Symbols YouTube Video - 10 Minutes

Non Destructive Weld Symbols PowerPoint - Located in Resources - 7 Slides

This week's assignment:

Module 9 & 10 Quiz - 10 Questions

12.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This Week's Content

Non-Destructive Inspections Symbols YouTube Video - 10 Minutes

Non-Destructive Weld Symbols PowerPoint - Located in Resources - 7 Slides

12.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's assignment:

Module 9 & 10 Quiz - 10 Questions - Located in Resources Tab

12.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

12.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's

content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

12.6 Module Wrap-Up

Concept Goals:

Interpret non-destructive testing symbols and their methods.

Concept Content:

This week we finished talking about Non-Destructive Welding Symbols. These types of testing are important for being able to assess welds for their overall quality. Being able to tell which types of tests are required by the job is a vital part of being a welder. A welder needs to be able to test their welds to make sure their work is up to standards.

This Week's Content

Non-Destructive Inspections Symbols YouTube Video - 10 Minutes

Non-Destructive Weld Symbols PowerPoint - Located in Resources - 7 Slides

This week's assignment:

Module 9 & 10 Quiz - 10 Questions

Module 13 - Developing a Working Sketch

13.1 Module Overview

Concept Goals:

Develop a working sketch.

Concept Content:

Developing a working sketch is an important skill for a welder. This allows you to relay information to other welders to make sure that a welding job is done correctly. It also allows you to create an accurate blueprint for a client and be able draft a proper bill of materials.

This Week's Material:

Sketching Textbook Unit - 5 Pages - Located in Resources Tab

Bill of Materials Textbook Unit - 5 Pages - Located in Resources Tab

Weld Prints - 5 Slides - Located in Resources Tab

Basic Weld Blueprint YouTube Video - 8 Minutes

This Week's Assignment:

Object Sketch Assignment

13.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This Week's Content:

Sketching Textbook Unit - 5 Pages - Located in Resources Tab

Bill of Materials Textbook Unit - 5 Pages - Located in Resources Tab

Weld Prints - 5 Slides - Located in Resources Tab

Basic Weld Blueprint YouTube Video - 8 Minutes

13.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week's assignment will be to take an object in the welding lab and create an isometric and an orthographic view of the object. Be sure to list the size dimensions of the object as well. Be sure to upload your file to the quiz slot in the assignments tab.

13.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

13.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

13.6 Module Wrap-Up

Concept Goals:

Develop a working sketch.

Concept Content:

Developing a working sketch is an important skill for a welder. This allows you to relay information to other welders to make sure that a welding job is done correctly. It also allows you to create an accurate blueprint for a client and be able draft a proper bill of materials.

This Week's Material:

Sketching Textbook Unit - 5 Pages - Located in Resources Tab

Bill of Materials Textbook Unit - 5 Pages - Located in Resources Tab

Weld Prints - 5 Slides - Located in Resources Tab

Basic Weld Blueprint YouTube Video - 8 Minutes

This Week's Assignment:

Object Sketch Assignment

Module 14 - Review of Course Material

14.1 Module Overview

Concept Goals:

Briefly review course material in advance of the final exam.

Concept Content:

This week we will go into a brief review of some of the course content going into the final exam.

This Week's Content:

International Standard Symbols for Welding Unit - 22 Pages - Located in Resources Tab

Basic Joints for Weldment Fabrications - 5 Pages - Located in Resources Tab

Welding Symbols Basic to Expert YouTube Video - 10 Minutes

This Week's Assignment:

Different Types of Fillet Welds Worksheet
Groove Weld Worksheet

14.2 Module Content Resources

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This Week's Content:

International Standard Symbols for Welding Unit - 22 Pages - Located in Resources Tab

Basic Joints for Weldment Fabrications - 5 Pages - Located in Resources Tab

Welding Symbols Basic to Expert YouTube Video - 10 Minutes

14.3 Module Assessment/Assignment

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week there are two worksheets assigned in the resources tab:

Different Types of Fillet Welds Worksheet
Groove Weld Worksheet

Download and complete both of them and upload the files to the assignments tab.

14.4 Module Reflection

Concept Content:

This is a completely optional section. The purpose of this section is to ask your students to reflect on the material they have learned in this course. Or, if there is a specific area of the content you wanted to make sure students understood, you could guide them to discuss that in their response to your reflection question(s). You could also use this section to discuss case studies related to the content this section went over. However, if you feel that this would not be an appropriate assignment/task for your specific subject, please feel free to delete this section from your class.

14.5 Module Discussion Board

Concept Content:

This is a completely optional section. The prupose of this section is to invite your students to discuss the week's content and what they learned from it with each other. If you feel this would not be approriate for your class or at least this week's content, feel free to delete it. If you are interested in doing a discussion board, a good idea would be to come up with a question related to the week's content for the students to answer. From there, require them to answer the quesion and respond to a least one other student's answer to foster discussion.

14.6 Module Wrap-Up

Concept Goals:

Briefly review course material in advance of the final exam.

Concept Content:

This week we will go into a breif review of some of the course content going into the final exam.

This Week's Content:

International Standard Symbols for Welding Unit - 22 Pages - Located in Resources Tab

Basic Joints for Weldment Fabrications - 5 Pages - Located in Resources Tab

Welding Symbols Basic to Expert YouTube Video - 10 Minutes

This Week's Assignment:

Different Types of Fillet Welds Worksheet
Groove Weld Worksheet

Module 15 - Final Exam

15.1 Final Exam

Concept Goals:

Outline the learning goals for this module here.

Concept Content:

This week is our final exam. It will cover all the material and content in this course. Located in the assignments tab, it has 37 questions covering material from all of the previous modules.

15.2 Course Wrap-Up

Concept Content:

With the final exam completed, you have reached the end of this course. Reading symobls and blueprints are both important skills for your success as a welder. With this foundational knowlege, you will be able to go further in your welding career than before. I wish you the best of luck as you complete your program of study.