

**MFG-105**

**Blueprint Reading w/Shop Math**

**Winter 2019**

**Instructor:** Matt Higgins      e-mail:higginsdavidm01@jccmi.edu

**Meeting Information:**

JW 171

Lecture/Lab Schedule - TBD See class information schedule at the end of this document.

Credits: 4 credit hours – 6 BCH

Class Dates : 03/18 to 04/29 **Mondays 1:30-7:30**

**Course Description:**

This course will provide the student with a working knowledge and understanding of a variety of mechanical and electrical blueprints. Students will learn to recognize and identify symbols and specifications common to modern industrial blueprints. Topics will include: lines and symbols, views, form, position, title blocks, sketching, features and sections.

**Course Outcomes:**

After completing this course students will be able to:

- Demonstrate the use of proper symbols and layouts on prints
- Show methods of showing parts and assemblies in standardized formats
- Utilize basic shop math to calculate typical equations involved in the manufacturing area
- Identify correct and incorrect methods of blueprint communication.
- Pass various competencies as they relate to standard terminology

**Text:**

Reference materials will be provided in an ONLINE format through the JetNet application.

**Hybrid Format:**

This course is presented in a hybrid format that allows the student to work through the course materials at a pace that will allow them the most effective use of their time. There are 'hard' completion dates activities throughout the course and those will be listed in JetNet.

**Lecture:** This format has NO official in person lecture. Instead, the theory and background information is presented in a series of online learning modules that the students may complete at a location of their convenience. The learning modules have a pre-test, online lectures and activities, with a post-test for each learning module. Some learning modules will be required to be completed BEFORE working in the lab on hands-on projects. Any online learning module will require at least an 80% score on the post-test to move ahead and achieve competency. The login information and supporting documents will be presented to you on the FIRST CLASS meeting date.

**Lab :** This format has a lab component to provide a student with the hands-on skills to accompany the knowledge gained in the learning modules. There are (5) hands-on competencies that will require a significant amount of class time to complete. The lab is

generally open from 1:30-7:30 on lab days. **ATTENDANCE/HOURS SPENT IN THE LAB WILL NOT COUNT TOWARDS YOUR GRADE. Grading will only occur on the competencies shown on the rubric for each lab assignment.**

### **Grading:**

Learning Modules (8 in total) are worth 10 points each      80 pts possible\*  
Lab Competencies (5 in total) are worth 20 points each    + 100 pts possible  
Total class points = 180 pts possible

\*Learning modules **MUST BE COMPLETED** with at least an 80%  
Modules may be repeated a maximum of 3 times, beyond that will receive a ZERO for that learning module if the score is less than 80%. Learning modules not completed by the due date will also receive a zero.

### **Grading Scale:**

94-100 = 4.0	78-83 = 2.5	60-65 = 1.0
89-93 = 3.5	72-77 = 2.0	55-59 = 0.5
84-88 = 3.0	66-71 = 1.5	0-54 = 0.0

A 2.0 or "C" is a passing grade. Only courses with passing grades count toward graduation or a certificate. Other colleges transfer in only courses with passing grades. Many financial aid sources, including most employers, require passing grades.

### **Incompletes**

No incomplete grades will be given in this class except under extraordinary circumstances and if the student has completed at least 75% of the work and has at least 2.0 in the course. The grade of "I" is not awarded to students who did not attend, or seldom attended, or to those who simply are not pleased with their final grades. Students receiving an "I" may submit the remaining work during the next class offering by attending the remainder of the class. Or, talk to me about specific arrangements to complete the remaining work in a manner that is acceptable to me.

Students do not redo work that had already been graded. Of course, students can drop the class up to the drop deadline as specified on the website calendar. See

[http://www.jccmi.edu/studentservices/registration/grading\\_system.htm](http://www.jccmi.edu/studentservices/registration/grading_system.htm) for more info

### **Participation grades (HQV) and Final Grades:**

You will receive 3 HQV grades during the semester (see Participation Reporting, p16 of the JCC catalog). You can view your HQV grades and final grades in e-services on the JCC website, by clicking the students menu, then clicking the grades by term hotlink.

\* V means verify. It verifies that you are participating **AND HAVE COMPLETED AT LEAST**

THE ASSIGNMENT SHOWN ON TIME.

\* H means you need help. You will be contacted by the Center for Student Success.

\* Q means you have been withdrawn from the course due to lack of attendance. Contact student services

**Please Note:**

"Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the office of Learning Support Services at 787-0800, extension 8270/8553 as soon as possible to ensure that such accommodations are implemented in a timely fashion."

**College Closing:**

Usually the College does not close due to inclement weather. Any cancellation of classes will be announced on the local radio stations. You can also call the switchboard (800) 787-0800.

Also see <http://www.jccmi.edu/info/closings.htm>

**Academic Honesty Policy**

The JCC Academic Honesty policy states that **academic honesty is expected of all students**. It is the ethical behavior that includes producing their own work and not representing others' work as their own, either by plagiarism, by cheating, or by helping others to do so. **Cheating is obtaining answers/materials from an outside source without authorization.** Cheating includes, but is not limited to: Plagiarizing in all forms, using notes/books without authorization, copying, submitting others' work as your own or submitting your work for others, altering graded work, falsifying data or exhibiting other behaviors generally considered unethical.

**Plagiarism is the failure to give credit for the use of material from outside sources.**

Plagiarism includes but is not limited to: Using data, quotations, or paraphrases from other sources without adequate documentation, submitting others' work as your own, or exhibiting other behaviors generally considered unethical. **Faculty members who suspect a student of academic dishonesty may penalize the student by taking appropriate action up to and including assignment a failing grade for the paper, exam, or the course itself.**

<http://www.jccmi.edu/administration/deans/Policies/Academic%20Honesty%20Policy.doc>

**Conduct:**

Students are expected to behave in a mature, respectful manner in the classroom and laboratory. No texting, games, or social media usage during class. This class will require you to use potentially dangerous equipment so your adherence to safety is paramount. Students that work in an unsafe manner will be asked to leave the class and may not return for the remainder of the semester.

**Other notes:**

Check Jetnet regularly, for information on the class; including topics to cover, homework, lab assignments, etc.

**Course Schedule MFG 105****Blueprint Reading**

<u>Date</u>	<u>Topic</u>	<u>Assignment(s)</u>
3/18	Class Introduction Access learning system by	03/22

**Learning Module Due Dates :**

A. Blueprint Reading 131	03/31
B. Basic Measurement 101	03/31
C. Units of Measurement 112	04/07
D. Mathematic Fund 101	04/07

**Lab Assignment #1** can be started after completion of Learning Mod A,B,C,D

E. Geometry /Lines 151	04/15
F. Trig 201	04/15

**Lab Assignment #2** can be started after completion of Learning Mod E and F.

G. Trig 211	04/15
H. Interpreting BP 230	04/19

**Lab Assignment #3-5** can be started after completion of Learning Mod G and H.

**All lab assignments are due complete not later than 04/29/2019,** as this is the last day of class. Learning modules are to be completed by the dates shown. Lab work cannot be started until the learning modules listed are complete. In order to be active in this course and get a 'V', you need to complete the activities by the due dates shown.

**Lab Assignments**

- #1 Basic Print Reading exercise
- #2 Sketching Exercise
- #3 Geometry Worksheet
- #4 Trig Work Sheet
- #5 Blueprint Reading Final Exercise