

**CAMPUS NAME:** Ankeny

**COURSE TITLE:** Machine Trade Printreading I

**COURSE NUMBER:** MFG 121

**SECTION NUMBER & CRN:** Section 1 CRN 10063

### **INSTRUCTOR INFORMATION**

**NAME:** Mark Rosenberry

**EMAIL ADDRESS:** merosenberry@dmacc.edu

**PHONE NUMBER:** 515-964-6452

**FAX NUMBER:** 515-964-6815

**OFFICE LOCATION:** Building 3E Room 103A

**OFFICE HOURS/APPOINTMENTS:** Posted outside my office

### **COURSE INFORMATION**

**SEMESTER/YEAR:** Fall 2015

**DATE SYLLABUS CREATED AND/OR REVISED:** 2015

**DAYS & TIME & LOCATION:** BLDG 3E Room 121

Section 1 Aug. 24 - Dec.9 Mon. & Wed. 12:50pm – 2:40pm

Midterm date: 10/14/15

**COURSE DESCRIPTION & CREDITS:** <http://www.dmacc.edu/courses/crsrod.asp>

**PREREQUISITES:** None

**COURSE COMPETENCIES:** <https://go.dmacc.edu/competencies>

During this course, the student will be expected to:

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1. Explain what a blueprint is and how it is used
2. Define commonly used line types
3. Demonstrate knowledge of the combination of views used to describe an object
  1. Recognize the combination of views
  2. Explain what governs the number of views needed
  3. Explain the value of sketching a part
  4. Sketch horizontal, vertical, slant lines by freehand
  5. Sketch a circle
  6. Sketch top, front, and right side views using third-angle projection
  7. Associate pictorial and orthographic drawings and how they are used
4. Draw an auxiliary view
  1. Identify an auxiliary view

2. Distinguish between primary and a secondary auxiliary view
3. Describe how and when auxiliary views are used
5. Illustrate the standards for dimension
  1. Describe two purposes construction dimensions serve
  2. Identify the dimensions which indicate the exact size and location of details on a print
  3. Show the similarities and differences between the aligning method and the unidirectional method of dimensioning
  4. Identify common symbols used on blue prints
  5. Describe how to dimension cylinders, circles, and arcs
  6. Demonstrate how to dimension different types of holes, angles, points, centers and large arcs
  7. Dimension holes by using leaders
  8. Delineate the two common methods of dimensioning angles
  9. Describe linear and angular measurement
  10. Explain the differences between dimensioning methods such as baseline or chain dimensioning.
6. Distinguish between unilateral and bilateral tolerances
  1. Describe unilateral and bilateral tolerances
  2. Demonstrate knowledge of fractional and angular tolerances and dimensions
  3. Describe the limits of accuracy on a drawing
  4. Explain why the decimal system of dimensioning is widely used in the industry
7. Explain what ISO stands for
  1. Describe the ISO Symbols
  2. Explain First-Angle Projection
  3. Make a drawing using Dual Dimension System
8. Describe section views
  1. Describe cutting planes, cross hatching, and section lining
  2. Give an explanation of what an exterior view shows
  3. Describe how to obtain a sectional view
  4. Narrate what a half section view shows
  5. Identify full, half, broken or partial sections and their uses
  6. Describe what a conventional break is
  7. Identify what is included in an assembly drawing
9. Explain what Geometric dimension and tolerances are, and how they are used
  1. Explain what a datum refers to
  2. Describe coordinate dimensioning
  3. Explain the coordinate charts and their uses
  4. Distinguish among the 5 basic types of tolerances
  5. Identify the datum features of cylindrical part(s).
  6. Explain what a reference frame and a feature control frame are
  7. Identify what a datum target symbol refers to

## **TEXTBOOKS & MATERIALS**

**REQUIRED TEXTBOOKS & ISBN:** Machine Tool Practices Blueprint reading for the machine trades 7th edition ISBN 13:978-0-13-217220-2 Students may use an earlier addition if they wish. Page numbers and Figure references will be different requiring extra effort to follow class discussions.

**REQUIRED MATERIALS:** Three ring binder and safety glasses

## **COURSE POLICIES**

### **ATTENDANCE/PARTICIPATION:**

- A) Attendance will be taken at the start of each class and optionally during the class to determine one of two conditions.
- 1) Present for class
  - 2) Absent for class the student must attend all scheduled hours of a class session to avoid an absence.
- B) Break times are scheduled and everyone must abide by the listed times. If someone must leave an area they must inform their instructor. Failure to do so may result in an absence being recorded.
- C) Attendance records will be maintained by the instructor and will be made available to authorized individuals who request this information. Penalties for absenteeism will occur as follows: Five percent of the final grade for any Tool & Die class will be determined by attendance. The calculation will involve determining the number of clock hours of missed class and converting that into a percentage of the total hours of that semesters class. Credit for the five percent will be issued by the following:

4% of missed class time or less = 100% of the available attendance points (5% of final grade)  
5% of missed class time or less = 90% of the available attendance points (5% of final grade)  
6% of missed class time or less = 75% of the available attendance points (5% of final grade)  
7% of missed class time or less = 55% of the available attendance points (5% of final grade)  
8% of missed class time or less = 30% of the available attendance points (5% of final grade)  
9% of missed class time or less = 10% of the available attendance points (5% of final grade)  
over 9% of missed class time = 0% of the available attendance points (5% of final grade)

Exceptions: When all projects and objectives for a class are met the student, with the instructor's approval may be excused from remaining class sessions.

- D) Students are provided with a maximum of two occasions to make-up test(s). On either occasion there will be a reduction of the make-up test grade by 10 percent. Any make-up test will be scheduled at the convenience of the instructor. If an unavoidable absents is known in advance, the student may take the scheduled exam prior to its regularly scheduled time, without incurring a grade penalty.  
Unannounced quizzes issued during class cannot be made-up.

### **GRADING CRITERIA:**

See Tool and Die policy handout: Safety and Organizational Rules

Work sheets: Daily / as needed 5 – 20 points

Quizzes: Daily / as needed 5 – 20 points

Test:

Unit 1	100 pts
Unit 2	100 pts
Unit 3	100 pts
Unit 4	100 pts
Unit 5	100 pts
Unit 6	100 pts
Unit 7	100 pts

	Unit 8	100 pts
Instructor's discretion	Unit 9	50-100 pts

The following grading scale will be used for all MFG courses:

A	= 96.00% - 100%
A-	= 94.00% - 95.99%
B+	= 91.90% - 93.99%
B	= 89.80% - 91.89%
B-	= 87.80% - 89.79%
C+	= 85.70% - 87.79%
C	= 81.80% - 85.69%
C-	= 79.80% - 81.79%
D+	= 77.70% - 79.79%
D	= 74.81% - 77.69%
D-	= 72.80% - 74.80%

**CLASSROOM CONDUCT:** <https://go.dmacc.edu/handbook>

**MISSED EXAMS:** See item "D" in the attendance section

**LATE ASSIGNMENTS:** Late assignments must be turned in within 5 class days of the due date, or of a student's return to class.

**EXTRA CREDIT:** Determined by instructor

**STUDY EXPECTATIONS:** Some study time will be provided during class. Students are expected to spend additional study time as required to maintain the goals he or she has set.

**WEATHER POLICY:** Individual circumstances such as health, childcare, rural roads, distance from the College, etc. can vary greatly among students and staff. It is always DMACC's goal to provide safe learning conditions, as well as provide the opportunity for students to attend classes when the vast majority is able to safely attend. The final decision to come to College can only be made by the individual student based on their specific extenuating circumstances that may make it unsafe for them to travel. During adverse weather, DMACC faculty is considerate of students who are unable to attend classes due to unique extenuating circumstances. Notification of Campus/College closures will be sent out through the DMACC RAVE Alert System, posted to the DMACC webpage at [www.dmacc.edu](http://www.dmacc.edu), and where possible sent to local media.

Click & delete row if addendum being used with weather information.

**CLASS CANCELLATION PROCEDURE:** Tool and Die classes are seldom cancelled unless the college is closed. If it becomes necessary to cancel a class students will be notified via their DMACC e-mail.

**ACADEMIC DISHONESTY/PLAGIARISM:** Cheating by copying or any electronic device will not be tolerated. See Tool & Die Syllabus Addendum and Program Policies

It is important for you to be familiar with and follow DMACC's Academic Misconduct policy. Students are encouraged to review DMACC's Academic Misconduct Policy on-line at <https://go.dmacc.edu/handbook/polprocedures/pages/academicmisconduct.aspx> or in the DMACC Student Handbook.

**COURSE SPECIFIC (LAB) SAFETY PROCEDURES:** See Tool & Die Syllabus Addendum and Program Policies

## DMACC INFORMATION

**INSTRUCTOR HOME PAGES:** <http://www.dmacc.edu/instructors>

**ADD/DROP DATES:** [https://go.dmacc.edu/registration/pages/add\\_drop.aspx](https://go.dmacc.edu/registration/pages/add_drop.aspx)

**REFUND POLICY:** <https://go.dmacc.edu/registration/Pages/refund.aspx>

## SUPPORT SERVICES

**SERVICES FOR STUDENTS WITH DISABILITIES:**

[https://go.dmacc.edu/student\\_services/disabilities](https://go.dmacc.edu/student_services/disabilities)

Any student with a documented disability who requires reasonable accommodation should contact the Disability Services Coordinator at **515-964-6850** or the counseling & advising office on any campus to apply for services.

## COURSE SYLLABUS

**DISCLAIMER:** “This syllabus is representative of materials that will be covered in this class; it is not a contract between the student and the institution. It is subject to change without notice. Any potential exceptions to stated policies and requirements will be addressed on an individual basis, and only for reasons that meet specific requirements. If you have any problems related to this class, please feel free to discuss them with me.”

**NONDISCRIMINATION POLICY:** Des Moines Area Community College shall not engage in or allow discrimination covered by law. This includes harassment based on race, color, national origin, creed, religion, sex (including pregnancy and marital status), sexual orientation, gender identity, age, disability and genetic information. Veteran status in educational programs, activities, employment practices, or admission procedures is also included to the extent covered by law. Individuals who believe they have been discriminated against may file a complaint through the College Discrimination Complaint Procedure (ES4645). Complaint forms may be obtained from the Campus Provost's office, the Academic Dean's office, the Judicial Officer, or the EEO/AA Officer, Human Resources. For Title IX questions and concerns contact 515-964-6850.

Students who wish additional information or assistance may refer to Student Services procedure ES 4645 located at [https://go.dmacc.edu/student\\_services/int](https://go.dmacc.edu/student_services/int). Click Policies & Procedures.

Employees and applicants who wish additional information or assistance may contact the **EEO/AA Officer**, Human Resources, Bldg. 1 on the Ankeny Campus, or refer to HR Procedures 3000, 3005, 3010, 3015, and 3020 at <http://www.dmacc.edu/hr/hrpp.asp>

**Accommodations:** The Program Development/Academic Support Services Director is the official Student Accommodation Officer/Section 504/ADA Coordinator for DMACC. The ADA Coordinator's office is located in Bldg. 6-10E on the Ankeny Campus and may be contacted by voice (515-964-6857). The ADA Coordinator is responsible for ensuring that the college complies with federal regulations that guarantee qualified students with disabilities equal access to all programs and services. Any student, faculty, or staff member may contact the ADA Coordinator's office for clarification of federal regulations, appeal of a grievance, or resolution of a disability-related problem.

## SYLLABUS ADDENDUM

To access additional information related to DMACC policies and procedures that impact the classroom (i.e. use of technology, weather-related cancellations, classroom conduct, etc.), the DMACC student handbook, registration information (including add/drop dates and refund dates), student service information (including counseling and advising), the DMACC academic calendar, and campus-specific resources (i.e. Academic Achievement Center, library, computer, labs, etc.), go to <https://go.dmacc.edu/handbook> and click “Syllabus Addendum” in the left navigation.

If you do not have access to a computer and need a printed version of any of the information described above, contact your instructor.

COURSE SCHEDULE		
Week or Date	Assignment	Due Date
Approximate		
Week 1	unit 1	TBA
Week 2	unit 2	TBA
Week 3	unit 2	TBA
Week 4	unit 3	TBA
Week 5	unit 4	TBA
Week 6	unit 4	TBA
Week 7	unit 5	TBA
Week 8	unit 5	TBA
Week 9	unit 6	TBA
Week 10	unit 6	TBA
Week 11	unit 7	TBA
Week 12	unit 7	TBA
Week 13	unit 8	TBA
Week 14	unit 8	TBA
Week 15	unit 9	TBA
Week 16	unit 9	TBA