



<http://www.dmacc.edu>

**CAMPUS NAME:** Ankeny

**COURSE TITLE:** Machine Trade Printreading II

**COURSE NUMBER:** MFG 132

**SECTION NUMBER & CRN:** MFG 132 20233

### **INSTRUCTOR INFORMATION**

**NAME:** Dale E. Collins – Mark Rosenberry

**EMAIL ADDRESS:** [decollins@dmacc.edu](mailto:decollins@dmacc.edu)- [merosenberry@dmacc.edu](mailto:merosenberry@dmacc.edu)

**PHONE NUMBER:** Dale: 515-964-6845

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

**OFFICE LOCATION:** Dale 3E 104A –Mark 103A

**OFFICE HOURS/APPOINTMENTS:** Posted on office other times by appointment

### **COURSE INFORMATION**

**SEMESTER/YEAR:** Spring 2017, Jan 09, 2017 - May 04, 2017

**DATE SYLLABUS CREATED AND/OR REVISED:** 1-4-2017

**DAYS & TIME & LOCATION:** Jan 09, 2017 – May 04, 2017 TR 12:30-2:55  
Final Thursday April 27, 2017

### **Important dates**

<https://www.dmacc.edu/students/Pages/academiccalendar.aspx>

#### **COURSE DESCRIPTION & CREDITS:**

<https://www.dmacc.edu/Schedule/Pages/coursedescriptions.aspx>

**PREREQUISITES:** MFG 121

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

#### **COURSE OVERVIEW:** Student will learn:

Advanced Blue print Reading, Drafting and sketching, Related math

**STUDY TIPS:** To do well in this class, you must do your homework regularly (see schedule and dateline on the last pages). Study the assigned readings, which will help you follow the content of the lecture. Review your lecture notes. Ask questions. Students are expected to devote three hours of study time for each contact hour. This is a fast paced, hands-on course. It is realistic to expect to spend at least 6 hours per week studying for this class. If you miss any lecture, it is your responsibility to obtain the notes from a classmate as soon as possible. Then

review the missed notes and ask the instructor any questions on the missed material as soon as possible. The content of this course builds on itself throughout the semester. Consequently, it is important that students master early concepts, as they will become building blocks for concepts introduced later in the course. Students should seek extra help (tutoring, come in to office hours, etc.) as soon as possible if they feel that they are getting behind on the course material.

**HOW THE COURSE FITS INTO THE CURRICULUM:** Proper interpretation of Blue prints and being able to communicate through drawings is essential to mechanical trades.

## **TEXTBOOKS & MATERIALS**

**REQUIRED TEXTBOOKS & ISBN:** Blue Print Reading for the Machine Trades, sixth edition  
ISBN: 0-13-238830-8

Students may use an earlier edition 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 MECHANICLE PENCIL, COMPASS, 11 X 17 paper

**TOOL BOXES WILL BE CHECKED OUT THAT WERE USED IN BASIC MACHINE CLASSES**

**OPTIONAL OR RECOMMENDED BOOKS/MATERIALS:** Building on your tools while not required will enhance you. A more in-depth selection of Welding and Machinist tools is encouraged.

### **SOFTWARE APPLICATIONS:**

Software notice: "All the software used in this class is copyrighted; therefore, it is not for distribution, copying, or personal use. This software is the property of Des Moines Area Community College."

## **COURSE POLICIES SEE TOOL AND DIE SAFETY AND ORGANIZATIONAL RULES**

**ATTENDANCE/PARTICIPATION:** SEE TOOL AND DIE # 9

**GRADING CRITERIA:** See Tool and Die # 10

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

Tool and Die rules # 1-12

**MISSED EXAMS:** Tool and Die 8 & 9

**LATE ASSIGNMENTS:** Tool and Die 8 & 9

**EXTRA CREDIT:** None

**STUDY EXPECTATIONS:** Class members are expected to (1) attend all class meetings, (2) complete assigned readings, discussion questions, exercises, and writing assignments prior to each class meeting, (3) ask meaningful questions and make substantive comments, and (4) be responsible for all that is mentioned in class or in the required readings.

**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.

**CLASS CANCELLATION PROCEDURE:** In the rare event that I have to cancel class I will attempt to contact the phone list if possible. Please place contact information on the attendance sheet.

**ACADEMIC DISHONESTY/PLAGIARISM:** Academic integrity, based on the values of honesty, trust, fairness, respect, and responsibility, is a fundamental principle of scholarship at DMACC. DMACC's Academic Misconduct Policy (ES 4670) prohibits: plagiarism (using another person's writing or copying any work without proper citation), falsification, unauthorized collaboration during a test or on an assignment, or substitution for another student to take an exam, course or test. If you are to benefit from this class and be properly evaluated for your contributions, 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://www.dmacc.edu/handbook/polprocedures/pages/academicmisconduct.aspx> or in the DMACC Student Handbook. Work that violates these values is incompatible with the goals of this class and will not be tolerated. Students who are found responsible for a violation of the Academic Misconduct Policy will receive an "F" on that test or assignment. Upon a second occurrence it will be an "F" for the semester. Students have the right to appeal and may do so by following the procedures described in the Academic Misconduct policy.

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**COURSE SPECIFIC (LAB) SAFETY PROCEDURES:  
TOOL & DIE DEPARTMENT - SAFETY & ORGANIZATIONAL RULES 1, 2, 3  
DMACC INFORMATION**

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

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

**SUPPORT SERVICES**

**SERVICES FOR STUDENTS WITH DISABILITIES:**  
[https://www.dmacc.edu/student\\_services/disabilities](https://www.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.

## Early Alert Referrals

<https://www.dmacc.edu/counseling/Pages/facultyreferrals.aspx>

DMACC faculty is encouraged to help connect students to available resources at the college, including academic advising, counseling, tutoring, and more. Early Alert Referrals result in direct outreach by phone and email to students who have been referred. Students are encouraged to respond to outreach efforts and take full advantage of available resources in support of their success. Questions about this process should be directed to Bobby Nalean at **515-964-6474** or [earlyalert@dmacc.edu](mailto:earlyalert@dmacc.edu).

## 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 nor allow discrimination covered by law against any person, group or organization. This includes in employment, hiring practices or the provision of services, and harassment or discrimination 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. Complaint forms may be obtained from the Campus Provost's office, the Academic Deans' office, the Judicial Officer, or the EEO/AA Officer, Human Resources. For information about the ADA, the Section 504/ADA Coordinator may be contacted at 515-964-6857. 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://www.dmacc.edu/student\\_services/int](https://www.dmacc.edu/student_services/int). Click Policies & Procedures.

**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.

## **ADDITIONAL INFORMATION**

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.) please refer to the DMACC student handbook.

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

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### **For further Resources and Policies**

#### **The Syllabus Addendum Link:**

<https://go.dmacc.edu/helpdesk/Training%20Documents/Faculty%20and%20Staff/syllabusAddendum.pdf>

## **TOOL & DIE DEPARTMENT - SAFETY & ORGANIZATIONAL RULES**

Contents:

- 1. Safety glasses**
- 2. Safety wear**
- 3. Safety practices**
- 4. Equipment maintenance and care**
- 5. Cell phones**
- 6. Computer usage**
- 7. Tool privileges**
- 8. General rules**
- 9. Attendance policy**
- 10. Grade scale**
- 11. Lab housekeeping**
- 12. Penalties**
- 13. Personal health and accident insurance**
- 14. Personal property**

The following is a list of guidelines that must be followed to promote safety issues & care for shop equipment. Failure to abide by the rules will result in penalties as listed in section 12.

### **1. Safety glasses** Iowa code 280.20

All students will wear their safety glasses when in a lab environment. This will apply even if you are not running a machine. The only exception is in a classroom that is fully enclosed that has no hazardous equipment. Students must store their glasses in some place other than the lab. (Locker,

book bag, etc.) All glasses must be approved safety glasses by OSHA, sunglasses are not acceptable safety wear.

## **2. Safety wear**

All students must remove watches, rings, bracelets, or any other jewelry that could pose a safety hazard while operating machinery. If hair is long enough to pose a hazard it must be tied back to prevent possible machine contact when a machine operator leans forward. Everyone must wear full length pants (no shorts or sweat pants allowed.) Footwear must be fully enclosed to the ankles (no sandals, etc.) All long sleeve shirts must be rolled up past the elbow while operating machinery. No hoodies or wear with long loose sleeves and/or neck tie strings allowed.

## **3. Safety practices**

All work pieces must be retained in a manner that is appropriate for the type of machining incurred. No one shall try to overcome machine forces by physically holding the work piece. Some common work holding abuses are, but not limited to:

- A) Not properly blocking a work piece on a magnetic chuck.
- B) Not clamping or retaining drill press vise and/or work pieces.
- C) Cutting round stock on a band saw. (stock could roll and your fingers could be pinched)
- D) Leaving a chuck wrench in a chuck unattended.
- E) Creating long stringy chips.
- F) Using emery cloth on a lathe where the cloth could completely wrap around the diameter.

## **4. Equipment maintenance and care**

- A) All equipment must have sufficient oil levels before operation. This would include activating manual oilers and checking sight glasses.
- B) Covering all wear surfaces on a machine when abrasive materials are being used.
  - 1) emery cloth on lathes and mills.
  - 2) tool post grinding.
  - 3) cutting fiber board or similar abrasive material.
  - 4) way covers on surface grinders.
- C) NO AIR HOSES may be used to clean off a machine. This results in fine chips and abrasive under way covers.
- D) NO equipment shall be placed on a surface plate that could cause damage to the surface itself. (e.g. hammers, clamps, grinding wheels, etc.)
- E) NO equipment or hand tools shall be placed on a precision surface or a mill table temporarily or otherwise. (e.g. hammers, C-clamps not used in the set-up, cutting tools, etc.)

F) All work pieces, clamps, and vises that come in contact with a precision surface must be burr free. File, stone, or grind as necessary. (e.g. vise on a mill table)

## 5. Cell phones

Cell phones are to be on vibrate or off during lecture class. If a call comes in that is urgent in nature you are to completely leave the room. You will need to discuss the nature of the urgent call with the instructor at a later time; this should not be a daily occurrence. If there is a day that you know you will need to be contacted, inform your instructor prior to or at the beginning of class. Be sure your phone is on vibrate and quietly leave the room to answer call. This should also not be a daily occurrence. If you interact with the phone in class such as answering a call or returning a text you get one warning, after that you will be ask to leave as outlined in section 12.

If the instructor is giving a demonstration in lab the same rules apply as in a lecture class. Cell phones can be used in an open-lab class unless the usage becomes excessive as deemed by the instructor.

## 6. Computer Usage

A) **School computers will not be used to check personal E-mail, Facebook, Ebay, play games, etc... Internet use will be directly related to class only, including breaks and open lab time.** If you bring your own laptop, I-PAD, etc, you have to be completely out of any classes and not in the classroom to use this for personal purposes.

B) **It is student's responsibility to back up their work. DMACC and DMACC instructor's are not responsible for computer errors. Any time extensions or repercussions involved in the loss of data will be reviewed on a case-by-case basis. The student is not guaranteed recovery of data or extension of time.** Students are issued a "P:" drive that is the intended location of student data files. Local computer hard drives are frequently reimaged and any data stored on them will be wiped out.

C) Displaying lewd and explicit material, pornography, or any other material that is indecent and not related to the subject matter shall be prohibited. Any student displaying said material shall be reported to the Dean of Student Affairs for expulsion from the program. Propaganda, from political to religious subject, shall not be distributed or shown to other students during class time.

D) Only the programs that are displayed in the menus on the computer terminals in the lab may be used by the student. If a student attempts to add software to a terminal or steal a copy of software from a terminal, the student will be referred to the Dean of Industry & Technology office for disciplinary reasons.

## 7. Tool Privileges

A) All tools & equipment must be returned in a like condition with only a reasonable amount of wear for the time the tool was checked out.

B) Any tool that is broken must be replaced or repaired to a satisfactory condition depending on the extent of the damage, if the tool has been depreciated beyond the expected life of the tool, it will be discarded. All these decisions will be determined by the instructor.

YOU BREAK A) All precision crib tools must be treated in a manner that will maintain the accuracy of the tool. All precision surfaces must be handled carefully.

## 8. General rules

A) Materials may be used for lab projects ONLY! This would include steel, heat treat wrap, emery cloth, etc. An instructor may give you donated material with permission only.

B) Students may not work on anything but lab projects unless it is cleared first with their instructor, and is in good standing with their lab projects.

C) **Lectures will be given only once.** It is the responsibility of the student to obtain lecture information from other students if they miss a lecture. Any student that interferes with the delivery of a lecture by talking, walking around the room, making gestures, having cell phones on, etc. can be directed to leave. If, after being warned once, the student continues to disrupt the lecture, the student will have to leave and be counted absent and lose all the points possible for that class session. Continual display of actions that disrupt the class will result in the student being referred to the Dean of Industry and Technology for further discipline.

D) **All tests must be original.** Any person(s) found guilty cheating or copying an exam shall be disciplined. Any allegation of cheating shall be investigated. Points for any test being investigated shall not be determined until the investigation is concluded. Any person aiding another person to copy shall also be disciplined. If guilty, the student(s) shall lose all the points for the exam. The accused student(s) shall report to the Dean of Industry & Technology during which time a decision will be made as to the extent of additional discipline the student(s) will receive. The student(s) can be put on probation or can be expelled from any of the machining programs. If the student(s) commits a second offense the student(s) will immediately be removed from the class and will have to report to the Dean of Student Affairs to start procedures to expel the student(s) from the program. **All tests must be taken within 2 days of students return or a zero will be given.**

E) Students must not manufacture anything that could be used as, or in conjunction with the following:

- a) firearms (or weapons of any type)
- b) knives
- c) Anything illegal not previously mentioned.

F) Finals – last day to machine in a semester lab course is determined by the instructor. Any partially completed projects may not be given any credit at the discretion of the instructor. Final lab clean-up days at the end of the semester could be part of the semester grade and can be weighted by the instructor as deemed necessary.

## 9. Attendance policy

A) Any student more than 10 minutes late will receive an absence. If a student demonstrates habitual tardiness, they will be referred to a student counselor and possibly be removed from the class. Any student entering the classroom 10 minutes late or later will not be allowed to start any test in progress. **Any student who leaves the lab or classroom early without consulting the instructor will be counted absent. The instructor will determine whether leaving early fits the conditions and does not count as an absence.** During lab course where a break is not



generally scheduled students can take a 10 minute break per hour. Time observed missing in excess of this amount time will be counted as an absence. If you need to take care of related DMACC business and believe it will take a longer period consult with your instructor **before** leaving to avoid a deduction.

B) Field trips do require attendance. Only excused absences will be accepted. See the instructor at least one school day prior to the field trip for an exclusion from attending the field trip

C) Unannounced quizzes issued during class **can not** be made-up. Timed quizzes are likely to occur in the first two minutes of class.

D) If a student that has been absent and does not arrange a new completion date for an assignment(s) on the day that they return to school, they will lose all of the points for any assignment(s) that they have missed while they have been gone.

## 10. Grading Scale

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

|    |   |        |   |        |
|----|---|--------|---|--------|
| 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% |

## 11. Lab housekeeping

Lab(s) must be cleaned at the end of the class period. This would include cleaning the machine(s), sweeping and/or mopping the floors, emptying wastebaskets, returning crib tools, etc. This could result in a mandatory shut down of the lab to all students until housekeeping is regained. Poor housekeeping can create a hazardous work environment. Each student will be responsible for the mess they create; however the clean-up will be a group effort. No one will be dismissed from class until the clean up is complete. Any lab time lost will not be rescheduled.

## 12. PENALTIES

A) Any infractions will result in one verbal warning. Any additional infractions will result in the student leaving the class for the day, losing attendance and graded points for the day. It will also require you to visit the I&T Dean or associate Dean for a remedy. I will expect an e-mail from them to get you back in class.

Scott Ocken, Dean of Industry & Technology  
[sjocken@dmacc.edu](mailto:sjocken@dmacc.edu)  
Building 3W-21  
515-964-6364

Jenny Foster, Ph.D.

[jlfoster@dmacc.edu](mailto:jlfoster@dmacc.edu)

Associate Dean, Industry and Technology

Building 3W-15

515.964.6692

### **13. Personal health and accident insurance**

Des Moines Area Community College does not provide any health or accident insurance on students attending any program at DMACC. If you are not currently covered by adequate insurance, you may purchase health and accident insurance through the student activities office.

### **14. Personal property**

Des Moines Area Community College does not provide any personal property insurance to cover theft or damage to tools, personal belongings, etc.

DMACC does not assume any liability for theft or damage to tools or any other personal property such as book bags left in the classrooms or at the college at anytime. Therefore, it is suggested that each student who plans to leave tools at the college on a regular basis, or just occasionally, should insure them with a rider on your homeowner's policy or by separate insurance. Lockers may be checked out each semester to store personal belongings.

**COURSE SCHEDULE, SUBJECT TO CHANGE**

There will be 2 groups "A" and "B" in order to handle the large class.

|           |            |             |             |            |             |           |           |             |               |             |
|-----------|------------|-------------|-------------|------------|-------------|-----------|-----------|-------------|---------------|-------------|
| Group "A" | DUE        | week 1      |             |            | week 2      |           |           | week 3      |               | week 4      |
|           | DUE        | week 7      |             |            | week 8      |           |           | week 9      |               | week 10     |
| Group "B" | DUE        | week 1      |             |            | week 2      |           |           | week 3      |               | week 4      |
|           | DUE        | week 7      |             |            | week 8      |           |           | week 9      |               | week 10     |
|           |            | unit 8      |             |            | unit 9      |           |           | unit 10     |               | unit 11     |
|           |            | instructors |             |            | instructors |           |           | instructors |               | instructors |
|           |            | choice      |             |            | choice      |           |           | choice      |               | choice      |
|           |            | test        |             |            | test        |           |           | test        |               | test        |
| week 1-6  |            | "A"         |             |            | "A"         |           |           | "A"         |               | "A"         |
| week 7-12 |            | "B"         |             |            | "B"         |           |           | "B"         |               | "B"         |
|           | drawing 1  | drawing 2   | drawing 3   | drawing 4  | drawing 5   | drawing 6 | drawing 7 | drawing 8   | drawing 9     | drawing 10  |
| week 1-6  |            | "B"         |             |            | "B"         |           |           | "B"         |               | "B"         |
| week 7-12 |            | "A"         |             |            | "A"         |           |           | "A"         |               | "A"         |
| Group "A" |            |             | week 5      |            | week 6      | COMBINE   | COMBINE   | COMBINE     | COMBINE       | COMBINE     |
|           |            |             | week 11     |            | week 12     | Both      | Both      | Both        | Both          | Both        |
| Group "B" |            |             | week 5      |            | week 6      | Groups    | Groups    | Groups      | Groups        | Groups      |
|           |            |             | week 11     |            | week 12     | WEEK 13   | WEEK 13   | WEEK 14     | WEEK 15       | WEEK 15     |
|           |            |             | unit 12     |            | unit 13     |           |           |             |               |             |
|           |            |             | instructors |            | instructors |           |           |             |               |             |
|           |            |             | choice      |            | choice      |           |           |             |               |             |
|           |            |             | test        |            | test        | test      | test      | test        |               |             |
| week 1-6  |            |             | "A"         |            | "A"         |           |           |             |               |             |
| week 7-12 |            |             | "B"         |            | "B"         |           |           |             | FINAL         | FINAL       |
|           | drawing 11 | drawing 12  | drawing 13  | drawing 14 | drawing 15  | TP-135    | TP-136    | TP-138      | Abbreviations | DWG 21A024  |
| week 1-6  |            |             | "B"         |            | "B"         |           |           |             | choice        | P152        |
| week 7-12 |            |             | "A"         |            | "A"         |           |           |             |               |             |

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