



<http://www.dmacc.edu>

CAMPUS NAME: Ankeny

COURSE TITLE: Mill Operations Lab II

COURSE NUMBER: MFG 274

SECTION NUMBER & CRN: Section 1 CRN 20978
Section 2 CRN 21026

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: Spring 2017

DATE SYLLABUS CREATED AND/OR REVISED: 2017

DAYS & TIME & LOCATION: BLDG 3E Room 103

Section 2 Jan. 9 – March 6 Mon. – Thurs. 9:05am – 11:50am

Midterm date: 2/2/17

Section 1 March 7 – May 4 Mon. – Thurs. 9:05am – 11:50am

Midterm date: 4/6/17

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

PREREQUISITES: MFG 261

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

During this course, the student will be expected to:

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- 1.0 Operate a vertical mill.
 - 1.1 Perform daily maintenance requirements.
 - 1.2 Setup the following accessories - vise, strap clamps, sine bars, and fixtures.
 - 1.3 Perform common operating procedures - square work piece, drilling, reaming, countersinking.
- 2.0 Position spindle over a specific location.
 - 2.1 Use edge finder.

- 2.2 Practice use of center finder.
- 2.3 Utilize test indicator.

- 3.0 Orientation of spindle to table or work piece.
 - 3.1 Utilize master square
 - 3.2 Practice use of test indicator to set spindle square to table.
 - 3.3 Practice use of test indicator to set spindle at specific angles.

- 4.0 Identify commonly used cutting tools - fly cutter, end mill, insert cutter, form cutters.

- 5.0 Maintain all tooling and equipment (student or school property) in accordance with each individual manufacture.

TEXTBOOKS & MATERIALS

REQUIRED TEXTBOOKS & ISBN: Machine Tool Practices 10th edition ISBN 978-0-13-291265-5 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

Center Drills	# 3
Drill Set	1/16 - 1/2 by 1/64 th
Taps,	10-32, 1/4-20, 5/16-18, 3/8-16, 1/2-13, 2 flute
6" Flexible Rule	
Chuck key	K-3
Files	6" mill smooth, 10" flat bastard
Calipers	6" or 8" dial or digital
Micrometer set	1" or 0-3 or 0-6
Hex key Set	Inch and Metric
Adjustable Wrench	(10") or Wrench Set Inch and Metric
Test Indicator	
Edge Finder	
Center Finder/Wiggler	
End Mills,	2 flute double ended, 1/8,1/4,3/8
End Mills,	4 Flute single ended, 3/4 ,1/2

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
Projects

To receive a grade, the project must be completed and function.

CRITERIA FOR A "100"

Each of these elements must be met without exception!!

- * dimensions within tolerance
- * no sharp edges
- * no burrs
- * no restarts
- * no welds
- * no marks, that grinding will not clean up

TO EARN AN "A" 97% (no restarts)

Given one exception, meets criteria for a "100". each out of tolerance dimension, or each burr, or each sharp edge, etc. counts as an exception

TO EARN A "B" 90% (not more than 1 restart)

given two exceptions, meets criteria for "A"

TO EARN A "C" 83% (not more than 2 restarts)

given three exceptions, meets criteria for an "A".

TO EARN A "D" 75% (not more than 3 restarts)

given four exceptions, meets criteria for an "A".

TO EARN AN "F" 70%

given five exceptions, meets criteria for an "A".

Projects

graded 100pts	project 1	vise base
graded 70pts	project 2	vise slide
graded 120pts	project 3	sine plate
graded 15pts	project 4	sine plate pins
graded 50pts	project 5	fly cutter
graded 75pts	project 6	yoke clamps
graded 35pts	project 7	short yoke clamp
graded 200pts	project 8	v blocks

graded 5pts	project 9	correct use of wiggler
graded 5pts	project 10	correct use of edge finder
graded 5pts	project 11	indicate head of Bridgeport
graded 5pts	project 12	locate edge with indicator
quizzes as needed		

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, 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

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

SUPPORT SERVICES

SERVICES FOR STUDENTS WITH 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.

EARLY ALERT REFERRALS

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

DMACC faculty are 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.

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. 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
Week 1	projects and safety / projects 9, 10,11,12	End of course
Week 2	Projects 2	End of course
Week 3	Projects 3-4	End of course
Week 4	Projects 5, 6	End of course
Week 5	Projects 7, 8	End of course
Week 6	Projects 7	End of course
Week 7	Projects 1	End of course
	Projects may be completed in any order	

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