

Oklahoma State University Institute of Technology
ETDM 1413 Syllabus
Summer 2017

ETDM 1413 Conventional Manufacturing Processes & Tooling

Students learn the appropriate tools and tooling for lathes and mills, ANSI standards for inserts and tool holders, proper speed and feed for materials, proper tool geometry, create a process flow and identify process improvement opportunities available with new technology.

Type of course: Theory/Lab

Credit Hours: 3; Total clock hours of theory per semester: 30;

Total clock hours of lab for the semester: 45.

Class length – Full Semester

Class days and times: MWF 8:00 – 9:30

Prerequisites: ETDM 1153, MATH 1513

Instructor Name: Robert Stout

Instructor Phone: (918) 293-5126

Office: Reynolds Bldg. Rm. 143

Instructor email: rostout@okstate.edu

Contact: My preferred method of contact is email. Please allow 24-48 hours to return your correspondence during the normal work week.

Instructor's Office Hours: Monday & Wednesday & Friday 10:00 a.m. to 11:00 a.m.

Division Name: School of Engineering Technologies

Division's Main Phone: 918-293-5150

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: Machining Fundamentals 9th Ed.

ISBN-10: 1619602091 or ISBN-13: 978-1619602090

Machining Fundamentals 9th Ed. Workbook

ISBN-10: 1619602148 or ISBN-13: 978-1619602144

References: Machinery's Handbook 29th Ed.

ISBN-10: 083112900X or ISBN-13: 978-0831129002

Materials: Materials needed are notebook, pen or pencil, calculator, folder, safety glasses, thumb drive (1G minimum).

Optional: Remind App. for IOS & Android.

Uniform/Tools: Shoes (no open toed), long pants, and no jewelry.

Estimated Cost for Materials: \$ 150.00

Estimated Cost for Uniform/Tools: \$ 525.00

Upon completion of the course, students should:

Course Objectives	Assessment of Objectives
Demonstrate the understanding of general shop safety, rules, and equipment.	Quiz
Demonstrate understanding and use of the machinist handbook	Lab
Demonstrate the basic operation of a lathe	Lab
Demonstrate the basic operation of a mill	Lab
Demonstrate the process of making parts by creating routings	Lab/Quiz
Estimate times for set up and manufacturing of a variety of parts	Lab/Quiz
Explain process improvement for parts with cost savings to the company	Quiz
Identify the application of tools and tooling used on a lathe and mill	Quiz
Create process flow for projects	Quiz
Demonstrate process improvement by saving time and money	Quiz
Identify new technology to improve a process	Quiz
Identify ANSI standards for inserts and tool holders	Quiz
Identify and demonstrate the proper speed and feed for materials	Lab/Quiz

Aspects of the course objective assessments may be used in the university's assessment of student learning. If applicable, an asterisk (*) above indicates this course is used in the university assessment program.

COURSE ACTIVITIES

In this course students will:

- Participate in class discussions and activities.
- Take examinations.
- Complete reading assignments.
- May be required to do quizzes.
- Complete Lab projects

EVALUATION - GRADES WILL BE BASED ON THE QUALITY AND COMPLETION OF THESE TASKS: *(NOTE-Please indicate the course specific evaluations.)*

Homework & Assignments	30%
Exams.....	20%
Lab	50%
<u>Total</u>	<hr style="width: 100%; border: 0.5px solid black; margin: 0;"/> 100%

OSUIT Grading Scale
A = 90% -100%
B = 80% -89%
C = 70% -79%
D = 60% -69%
F = 59% & below

*The student’s grade for this assignment will be used in the university’s assessment of student learning. A 70% competency or higher receives a Pass rating. This Pass/Fail rating is independent of the student’s course grade.

Students are required during the final semester week to clean and apply proper maintenance to all machines and designated areas. Failure to do so will result in a drop in grade by one letter grade.

AUTHORIZED TOOLS

Students may use any/all course materials, including books and notes, while participating in classroom activities with instructors’ permission. All quizzes and written assignments are to be completed independently; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty. However, working in groups to prepare for assignments is encouraged.

LATE WORK

Late Work will only be accepted up to three days late unless prior arrangements are made with me. Each day after the assessment is due 10% of possible score will be deducted from score earned. Instructor has final decision.

TESTING

No notes or reference material will be used during testing unless approved by the instructor.

UNIVERSITY & COURSE EXPECTATIONS

It is the responsibility of each OSUIT student to read, abide by and maintain a copy of the syllabus for this course. Syllabi are available on the OSUIT website.

Students understand that excerpts or portions of their work may be utilized for institutional assessment purposes. The purpose of institutional assessment is for verification of student learning and program improvement. Every effort will be made to keep this information confidential.

AMERICANS WITH DISABILITIES ACT (ADA)

According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. If you think you have a qualified disability and need special accommodations, you should notify the instructor and request verification of eligibility for accommodations from the Office of Academic Accommodations/LASSO Center. Please advise the instructor of your disability as soon as possible, and contact The LASSO Center, located in the Noble Center for Advancing Technology – NCAT, top floor, and 918-293-4855 to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process during which the existence of a qualified disability is verified and reasonable accommodations are identified. (Fall 2013)

ACADEMIC DISHONESTY

Academic dishonesty or misconduct is neither condoned nor tolerated at OSUIT. Any student found guilty of academic dishonesty or misconduct shall be subject to disciplinary action. Academic dishonesty and/or misconduct includes, but is not limited to, the following actions: (1) Plagiarism: the representation of previously written, published, or creative work as one's own; (2) Unauthorized collaboration on projects; (3) Cheating on examinations; (4) Unauthorized advance access to exams; (5) Fraudulent alteration of academic materials; (6) Knowing cooperation with another person in an academically dishonest undertaking. Students are required to actively protect their work against misuse by others. For details, refer to The OSUIT Student Handbook (Student Rights and Responsibilities Governing Student Behavior) available online at http://www.osuit.edu/academics/forms/student_rights_responsibility.pdf.

If caught committing academic dishonesty, the following actions will be taken:

- 1st Time: You will be given a verbal warning and an automatic "0" for that assignment.
- 2nd Time: You will have a meeting with me over the consequences of your actions as well as be written up. You will receive a "0" for that assignment.
- 3rd Time: You will be written up (with no warning), required to meet with the Dean and Assistant Dean, and receive an automatic "F" for the class.

ATTENDANCE POLICY FOR FACE-TO-FACE COURSES

A primary component of OSUIT's Mission is "to prepare and sustain a diverse student body as competitive members of a world-class workforce." Regular and consistent attendance not only aids in academic success, dependable attendance is a requirement in today's real-world employment; therefore, regular and consistent attendance is a requirement in all OSUIT courses.

Definitions: Absent: Failing to attend all or a significant portion of a class or lab session.

- A. Students may not be marked as absent if missing class for situations such as, but not limited to
 - 1. participating in a required university activity such as a field trip;
 - 2. fulfilling a military obligation;
 - 3. a mandatory court appearance;
 - 4. death in the immediate family;
 - 5. extreme illness or accident to oneself or immediate family.

Instructors, at their discretion, may require proof of such events.

- B. It is the responsibility of the student to contact and inform the instructor and/or department in advance of such excused absences whenever possible.

Tardy: Arriving late to class as defined by the individual class instructor. Faculty, at their discretion, may equate three tardies to equal one absence.

If you arrive within the first five minutes of the class period you will be counted tardy, you will not be counted absent. If you arrive after the first ten minutes of the class period has passed, you will be counted absent.

Procedures:

Early Intervention

- A. Any student who misses 10% of an individual course (or earlier at faculty discretion) during a regular fifteen-week semester, or the equivalent portion of time in a shorter session, will have their name submitted by that course instructor to the OSUIT Early Alert System for retention intervention.
- B. At the point the Early Alert is issued, the student must meet with their assigned faculty advisor or designated faculty/staff member within seven (7) academic calendar days for counseling on how to improve their attendance and academic success.

Excessive Absences

- A. The University reserves the right to administratively withdraw any student from an individual course who misses 20% of that course, whether excused or unexcused, and, in the opinion of the instructor, the student does not have a reasonable opportunity to be successful in the course.
- B. Students should be aware any of the following may impact their financial aid:
 - 1. being administratively withdrawn from a course
 - 2. dropping a course
 - 3. their last date of attendance in a course

Please see OSUIT Policy 2-021 for full details and procedures.

Course Schedule			
Course Outline Schedule	Topic	Assignment	Due Date
Day/Week 1	Shop Safety	Quiz	05/07/2017
Day/Week 2	Machinery Handbook		
Day/Week 3	Machinery Handbook	Quiz	05/19/2017
Day/Week 4	Mill and Lathe Ops	Lab	05/26/2017
Day/Week 5	Calculations	Homework and Quizzes	06/02/2017
Day/Week 6	Lab Project #1	Lab	06/09/2017
Day/Week 7	Lab Project #2	Lab	
Day/Week 8	Lab Project #2	Lab	06/23/2017
Day/Week 9	Lab Project #3	Lab	07/14/2017
Day/Week 10	Lab Project #4	Lab	
Day/Week 11	Lab Project #4	Lab	07/28/2017
Day/Week 12	Lab Project #5	Lab	
Day/Week 13	Lab Project #5	Lab	08/11/2017
Day/Week 14	Routing for Lab Project #5	Lab	08/18/2017
Day/Week 15	Cost Estimates for Lab Project #5	Lab, Homework, Quizzes	08/21/2017

Schedule is subject to change at instructor discretion.

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I have read and understand this syllabus, and agree to abide by the policies, procedures and guidelines specified therein.

Printed Name

OSUIT Student CWID Number

Signature

Date