

**Odessa College
Machine Technology Department**

Course Syllabus

Course Number: MCHN 1416
Course Title: Machine Tool Repair
Credit Hours: 4
Prerequisites: MCHN 1413 and MCHN 1441
Corequisites: None

Instructor Information

Scott Bridges
Office 142B Sedate Hall
Office Phone# 432-335-6475
E-mail hsbridges@odessa.edu

Catalog Description: MCHN 1416 Machine Tool Repair (CIP 48.0507) (2-6) 4 hours
Basic repair of machine tools, disassembly, parts fabrication, and assembly of machine types, including related math, blueprint reading and safety. The student will develop a basic understanding of troubleshooting, repair, and machining of replacement parts for machine tools. This is the capstone course for the Machinist Option Level II Certificate. Lab fee required. (SCANS 1, 4, 5, 6, 8, 9)
Prerequisite: MCHN 1413 and MCHN 1441 or consent of department chair.

Textbook

Machine Tool Practices 9th Edition by Richard R. Kibbe, Roland O. Meyer, John E. Neely, Warren T. White. Copyright 2006 Pearson Prentice Hall

Supplies

Safety Glasses, textbook, calculator, 6” metal rule, pencil and notebook

Special Needs

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Learning Resource Center (Library)

The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog](#) (print books, videos, e-books) and [databases](#) (journal and magazine articles). [Research guides](#) covering specific subject areas, [tutorials](#), and the "Ask a Librarian" service provide additional help.

Student E-mail

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Student Portal

Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

Technical Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm.

Important School Policies

For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).

Learning Outcomes

Analyze and troubleshoot problems with machine tools, apply reverse engineering processes to reproduce faulty machine parts, disassembly and assembly of machine tools, interpret machine tool blueprints and diagrams.

Course Requirements

Students will be expected to be on time with the supplies listed above for every class. Time management is important. Lab exercises and projects are to be completed in class. Tests and final exam are to be completed.

Method of Evaluation

The evaluation will be determined by lab projects, homework, and a final exam.

Grade Scale		Weight	
Points	Grade		
90-100	A	Lab	50%
80-89	B	Homework	25%
70-79	C	Final	25%
65-69	D		
0-64	F		

Attendance Policy

Attendance is expected and necessary. Lectures and demonstrations as well as lab availability is important to your success in this class.

Academic Ethics

All lab work and testing is to be your own efforts. Any unethical behavior will result in action taken in accordance with Odessa College policies.

Course Competencies

1. To demonstrate competency in machine shop safety; the student shall be able to:
 - A. Identify and properly use personal protection equipment.
 - B. Recognize and report machine shop hazards.
 - C. Know and apply machine tool safety rules.
 - D. Know and apply hand tool safety rules.
2. To demonstrate competency in reading blueprints and machine tool manuals, the student shall be able to:
 - A. Understand and interpret blueprints and machine tool manuals.
 - B. Match and apply gathered information to troubleshooting
3. To demonstrate competency in troubleshooting and repairing of machine tools, the student shall be able to:
 - A. Understand the proper operation of machine tools.
 - B. Recognize and identify problems with machine tools.
 - C. Disassemble and assemble machine tools.
 - D. Replace faulty parts with new parts.
 - E. Reverse engineer and machine replacement parts as needed.