

Welcome to Communication Improvement for Machining Technology

Course Title:	Communication Improvement for Machining Technology	Semester and Year:	
Course Prefix:	CCOMG		
Course Number:	2100559 CY	Class Days & Times:	
Credit Hours:	3		
Lecture Hours:	3 hours, breaks included	Class Room Location:	
Lab Hours:	1 hour	Total Contact Hours:	64

Instructor Contact Information

Instructor:		Office Phone:	
Office:		Office Hours:	
E-mail:		Website:	

Course Overview

Course Description: Designed for students whose primary language is other than English. Focus on comprehending challenging industrial and job-related materials. Emphasis on industry-related vocabulary development and skills acquisition, including determining meaning from context, identifying word forms and variation in meaning, synonyms and antonyms, context clues, connotation and denotation, and fact and opinion.

Learning Outcomes:

Given topics on familiar, abstract, and technical issues; texts that are varied and of a specialized and technical nature; and learner texts which include, where necessary, information presented from other sources (e.g., photographs, drawings, reference text/ research information, diagrams), the participant will use English with 70% accuracy to:

1. Select the correct meaning of industrial and specific job-related terms based on the context surrounding the words.
2. Label industry-related examples of the following: synonyms versus antonyms, connotation versus denotation, and fact versus opinion.
3. Summarize by paraphrasing paragraphs and longer passages.
4. Explain the relationships between main ideas and supporting details in specific business-related passages.
5. Respond to spoken words, phrases, and sentences that occur in the machine shop, including warnings, suggestions, instructions, comments and descriptions.
6. Interpret material spoken at lectures and demonstrations.
7. Follow directions given by teachers in class and by supervisors on the job.
8. Respond to questions about machine shop problems, practices, and procedures when asked by shop staff, classmates or co-workers.
9. Produce shop-related speech which is clear, understandable and appropriate to the work environment, including technical terms and nomenclature.
10. Ask questions about, or otherwise clarify, missing or incomplete information.
11. Ask questions about problems, or explain a problem to someone else.
12. Scan the textbook for needed information.
13. Skim the textbook in order to summarize the gist of what is being said.

14. Use text tools like the table of contents, index, and tables to locate information.
15. Read charts, tables, engineering drawings, picture labels, and standard symbols.
16. Write complete sentences about shop-related matters with attention to punctuation, spelling, and grammar.
17. Write a report on a shop problem such as safety or production.
18. Write a memo making a suggestion to a supervisor or to co-workers.
19. Use standard abbreviations.
20. Make sketches or use pictorial means to convey ideas or problems.

Getting Ready

Prerequisites: ESL Reading & Vocabulary IV or placement by exam.

Required Material:

- *Technology of Machining Tools*, Steve F. Karr, et al, sixth edition. McGraw Hill, New York, New York, 2005.
- Communication Improvement for Machining Technology Handouts
- 1 pocket folder or 1 binder

**Optional Materials
or Reference Texts:** English Grammar Book (for reference only)
English-English Dictionary

Instructor Guidelines and Policies

Attendance: My goal is for you to succeed in this class. This will happen only if you attend class regularly. If you know in advance that you will miss a class, please let me know by phone or email. If you miss a class due to illness or emergency, you should email or call me afterwards about the lesson or work that you missed. **You are responsible for catching up on the progress of the lessons.** If you miss **two (2) classes** without notifying me in advance, I will call you. If you miss **more than five (5) classes without appropriate excuses**, you may be dropped from the class and be required to take the class again the following semester.

Assignments: You are required to complete all assignments as they are designed to help you to improve your skills. All students are required to submit a portfolio with writing samples from handout assignments.

Make-up Exams: There are **no** make-up exams except in emergency cases. Please talk to me in advance or right after your absence. You may also send me an e-mail or call if you know you will have to miss a quiz.

Cell phones and beepers: Please turn off cell phones during class.

Grade Determination:

Your grade is based on 1000 points.

Your grade will be determined by the following	Details	Points (if applicable)	Percent of Final Average
Chapter Preview Email	You will be assigned pages to preview before a chapter begins. Preview questions need to be answered by email before the class meets for the chapter. 5 points will be given upon submission. Additional points will be awarded based on the quality of the answer. Each preview email can earn up to 10 points.	150 (10 points each)	10%
Quizzes	A total of 15 quizzes will be given. Each quiz corresponds to each unit. Students need to take the quiz on a weekly basis. No make-up quiz is allowed.	150 (10 points each)	20%
Writing Assignment	10 written lab reports will be assigned throughout the course.	100 (10 points each)	20%
Mid-term Exam		200	20%
Final Exam		200	20%
Participation	Attendance and participation in learning activities	100	5%
Portfolio	Each student must submit a portfolio before being considered passing the class and given a grade. (Details in class)	100	5%
Total:		1000	100%

LETTER GRADE ASSIGNMENT:

Final Average in Percent	Credit Students Letter Grade	Continuing Education Students Grade
90 – 100%	A	Satisfactory (Certificate)
80- 89%	B	Satisfactory (Certificate)
70- 79 %	C	Satisfactory (Certificate)
< 70%	IP (Student is progressing but needs to repeat the class)	Unsatisfactory (No certificate)

Week Number	Objectives	Activities	Tests and Due Assignments
<p style="text-align: center;">1</p> <p style="text-align: center;">Introduction to Machining Technology</p>	<ol style="list-style-type: none"> 1. Receive spoken messages in the workplace. 2. Tell what a machinist does in his or her work. 3. Identify and pronounce correctly vocabulary related to the standard types of machine tools used in shops. 4. Talk about different types of jobs in the machine trade. 5. Identify and use the illustration and list of items patterns of organization. 	<ul style="list-style-type: none"> ▪ Student Handouts: H1:1; H1:2; H1:4; H1:5 ▪ <i>Technology of Machine Tools</i>, pp. 18-26. 	<ul style="list-style-type: none"> ▪ Preview Chapter 1. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 1.
<p style="text-align: center;">2</p> <p style="text-align: center;">Safety in the Machine Shop</p>	<ol style="list-style-type: none"> 1. Select and use appropriate reference materials. 2. Read a safety maintenance bulletin. 3. Identify factual details and specifications within a text. 4. Identify and use chronological order: process. 5. Identify and pronounce correctly vocabulary related to common shop hazards. 6. Identify and pronounce correctly vocabulary related to common shop safety equipment. 7. Identify key safety practices for the machine shop. 8. Talk about shop safety hazards, shop safety equipment, and shop safety practices. 	<ul style="list-style-type: none"> ▪ Student Handouts: H2:1; H2:2; H2:4; H2:5 ▪ <i>Technology of Machine Tools</i>, pp. 32-37. 	<ul style="list-style-type: none"> ▪ Preview Chapter 2. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 2. ▪ Lab Report 1 due.
<p style="text-align: center;">3</p> <p style="text-align: center;">Measurement</p>	<ol style="list-style-type: none"> 1. Say and write correctly some abbreviations and formulas used in the machine shop. 2. Read and pronounce correctly the graduations shown on some common steel rules. 3. Read and pronounce correctly the readings from an outside micrometer and a vernier caliper. 4. Identify and pronounce correctly vocabulary related to common measuring instruments. 5. Identify and write sentences that define a term and give an example. 	<ul style="list-style-type: none"> ▪ Student Handouts: H3:1; H3:2; H3:4; H3:5 ▪ <i>Technology of Machine Tools</i>, pp. 57-106 	<ul style="list-style-type: none"> ▪ Preview Chapter 3. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 3. ▪ Lab Report 2 due.

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<p style="text-align: center;">4</p> <p style="text-align: center;">Gages</p>	<ol style="list-style-type: none"> 1. Define and pronounce correctly vocabulary related to gages. 2. Identify and use the comparison-contrast patterns of organization. 3. Recognize and describe the uses of three basic types of plugs and ring gages. 4. Identify the main idea and supporting detail in a reading. 	<ul style="list-style-type: none"> ▪ Student Handouts: H4:1; H4:2; H4:4; H4:5 ▪ <i>Technology of Machine Tools</i>, pp. 108-125. 	<ul style="list-style-type: none"> ▪ Preview Chapter 4. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 4.
<p style="text-align: center;">5</p> <p style="text-align: center;">Layout Tools and Procedures</p>	<ol style="list-style-type: none"> 1. Distinguish between semi-precision and precision layout. 2. Identify and pronounce correctly vocabulary related to layout tools. 3. Identify and state the purposes of some layout tools. 4. Identify the steps for laying out a casting having a cored hole. 5. Read two or more column charts to obtain information. 6. Distinguish between comparison and contrast. 7. Read a description and interpret picture labels. 	<ul style="list-style-type: none"> ▪ Student Handouts: H5:1; H5:2; H5:4; H5:5 ▪ <i>Technology of Machine Tools</i>, pp. 141-159 	<ul style="list-style-type: none"> ▪ Preview Chapter 5. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 5. ▪ Lab Report 3 due.
<p style="text-align: center;">6</p> <p style="text-align: center;">Hand Tools and Bench Work</p>	<ol style="list-style-type: none"> 1. Read labels and instructions for holding, assembling and dismantling work pieces. 2. Record essential information that involves more than one sentence. 3. Identify and pronounce correctly vocabulary related to hand tools and bench work. 4. Identify the purpose and correct use of hand tools. 5. Scan a reading for needed information. 6. Identify the main idea and supporting details of a reading. 	<ul style="list-style-type: none"> ▪ Student Handouts: H6:1; H6:2; H6:4; H6:5 ▪ <i>Technology of Machine Tools</i>, pp. 161-192 	<ul style="list-style-type: none"> ▪ Preview Chapter 6. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 6. ▪ Lab Report 4 due.
<p style="text-align: center;">7</p> <p style="text-align: center;">Metal Cutting Technology</p>	<ol style="list-style-type: none"> 1. Define and pronounce correctly vocabulary related to metal cutting. 2. Use the nomenclature of a cutting-tool point. 3. Identify and use the cause and effect pattern of organization. 4. Classify chip types. 	<ul style="list-style-type: none"> ▪ Student Handouts: H7:1; H7:2; H7:4; H7:5 ▪ <i>Technology of Machine Tools</i>, pp. 196-270 	<ul style="list-style-type: none"> ▪ Preview Chapter 7. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 7.

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<p style="text-align: center;">8</p> <p style="text-align: center;">Metal Cutting Saws</p>	<ol style="list-style-type: none"> 1. Identify several different types of saws and their uses. 2. Locate chart information at intersections of rows and columns. 3. Identify and pronounce correctly vocabulary related to sawing machines. 4. Complete an outline on types of metal saws. 5. Name the main operative parts of a contour-cutting bandsaw and state the purpose of each. 6. Identify sawing problems and possible causes. 7. Identify the main idea and supporting details of a reading. 	<ul style="list-style-type: none"> ▪ Student Handouts: H8:1; H8:2; H8:4; H8:5 ▪ <i>Technology of Machine Tools, pp. 273-297</i> 	<ul style="list-style-type: none"> ▪ Preview Chapter 8. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 8. ▪ Lab Report 5 due. ▪ Take Mid-Term Exam
<p style="text-align: center;">9</p> <p style="text-align: center;">Drilling Machines</p>	<ol style="list-style-type: none"> 1. Identify six standard operations that may be performed on a drill press. 2. Read two-or more column charts to obtain information. 3. Identify and pronounce correctly vocabulary related to the sensitive drill press. 4. Identify the names of some major drilling operations and the tools used. 5. Identify and pronounce correctly the major parts of the twist drill. 6. Interpret tables, photographs, and illustrations. 7. Label the parts of a reamer. 	<ul style="list-style-type: none"> ▪ Student Handouts: H9:1; H9:2; H9:4; H9:5 ▪ <i>Technology of Machine Tools, pp. 299-344</i> 	<ul style="list-style-type: none"> ▪ Preview Chapter 9. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 9. ▪ Lab Report 6 due.
<p style="text-align: center;">10</p> <p style="text-align: center;">The Lathe</p>	<ol style="list-style-type: none"> 1. Identify factual details and specifications within text. 2. Follow sequential directions to complete a task. 3. Identify and pronounce correctly the major parts of the engine lathe. 4. Identify the names of a variety of lathe cutting tools and name the parts of a toolbit. 5. Identify and pronounce correctly the names of some important work-holding devices for the lathe. 6. Identify and describe some common lathe operations. 7. Label the parts of a screw thread. 	<ul style="list-style-type: none"> ▪ Student Handouts: H10:1; H10:2; H10:4; H10:5 ▪ <i>Technology of Machine Tools, pp. 347-460</i> 	<ul style="list-style-type: none"> ▪ Preview Chapter 10. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 10.

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<p style="text-align: center;">11</p> <p style="text-align: center;">Vertical Milling Machines</p>	<ol style="list-style-type: none"> 1. Identify and pronounce correctly the parts of the vertical milling machine. 2. Identify and pronounce correctly the parts of the rotary table. 3. Recognize task-related words with technical meanings. 4. Classify the most common vertical milling machining operations. 5. Match the tool and accessory to the picture. 	<ul style="list-style-type: none"> ▪ Student Handouts: H11:1; H11:2; H11:4; H11:5 ▪ <i>Technology of Machine Tools</i>, pp. 464-505 	<ul style="list-style-type: none"> ▪ Preview Chapter 11. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 11. ▪ Lab Report 7 due.
<p style="text-align: center;">12</p> <p style="text-align: center;">Horizontal Milling Machines</p>	<ol style="list-style-type: none"> 1. Identify and pronounce correctly the important parts of the horizontal milling machine. 2. Identify and pronounce correctly the index head parts. 3. Identify and pronounce correctly the main parts of a jig borer. 4. Identify the main idea and supporting details by outlining a reading. 	<ul style="list-style-type: none"> ▪ Student Handouts: H12:1; H12:2; H12:4; H12:5 ▪ <i>Technology of Machine Tools</i>, pp. 506-593 	<ul style="list-style-type: none"> ▪ Preview Chapter 12. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 12. ▪ Lab Report 8 due.
<p style="text-align: center;">13</p> <p style="text-align: center;">Computer Age Machining</p>	<ol style="list-style-type: none"> 1. Identify the names and functions of some common parts of a computer. 2. Identify and pronounce correctly vocabulary related to CNC machining. 3. Define CAD and CAM. 4. Fill out a chart with information that a supervisor gives to a new employee. 5. Analyze information from a line graph. 6. Identify the main idea and supporting details by outlining and mapping a reading. 7. Label the parts of a CNC machining center. 	<ul style="list-style-type: none"> ▪ Student Handouts: H13:1; H13:2; H13:4; H13:5 ▪ <i>Technology of Machine Tools</i>, pp. 597-668 	<ul style="list-style-type: none"> ▪ Preview Chapter 13. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 13.

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<p style="text-align: center;">14</p> <p style="text-align: center;">Grinding</p>	<ol style="list-style-type: none"> 1. Identify and pronounce correctly the important parts of three common grinding machines. 2. Identify surface grinding problems, causes, and remedies. 3. Identify and pronounce correctly the main parts of a cutter and tool grinder. 4. Identify the main idea and supporting details by outlining and mapping a reading. 5. Interpret tables and label illustrations. 6. Classify types of grinders. 7. Label the parts of a hydraulic surface grinder. 	<ul style="list-style-type: none"> ▪ Student Handouts: H14:1; H14:2; H14:4; H14:5 ▪ <i>Technology of Machine Tools, pp. 671-742</i> 	<ul style="list-style-type: none"> ▪ Preview Chapter 14. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 14. ▪ Lab Report 9 due.
<p style="text-align: center;">15</p> <p style="text-align: center;">Metallurgy</p>	<ol style="list-style-type: none"> 1. Create a flowchart describing the production of steel. 2. Identify and pronounce correctly heat-treatment terms. 3. Interpret tables and illustrations. 4. Identify the main idea and supporting details of a reading. 5. Classify nonferrous metals. 	<ul style="list-style-type: none"> ▪ Student Handouts: H15:1; H15:2; H15:4; H15:5 ▪ <i>Technology of Machine Tools, pp. 745-786</i> 	<ul style="list-style-type: none"> ▪ Preview Chapter 15. Answer preview questions by emailing on the WebCT course site. ▪ Take Quiz 15. ▪ Lab Report 10 due.
<p style="text-align: center;">16</p> <p style="text-align: center;">Final Exam</p>			<ul style="list-style-type: none"> ▪ Turn in Portfolio. ▪ Take Final Exam.