



CREDIT COURSE OUTLINE

I. COVER PAGE

(1) IT 205

(2) FOUNDATION SKILLS IN INDUSTRIAL TECHNOLOGY

(3) 2

Number Title Units

<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">(4) Lecture / Lab Hours:</td> </tr> <tr> <td colspan="2">Course Hours</td> </tr> <tr> <td style="width:50%;">Weekly Lec hours:</td> <td style="text-align: right;">36.00</td> </tr> <tr> <td>Weekly Lab hours:</td> <td style="text-align: right;">9.00</td> </tr> <tr> <td>Total Contact hours:</td> <td style="text-align: right;">45.00</td> </tr> <tr> <td colspan="2">Lec will generate __ hour(s) outside work.</td> </tr> <tr> <td colspan="2">Lab will generate __ hour(s) outside work.</td> </tr> <tr> <td>(5) Grading Basis:</td> <td>Grading Scale Only</td> </tr> <tr> <td></td> <td>Pass/No Pass option X</td> </tr> <tr> <td></td> <td>Pass/No Pass only</td> </tr> <tr> <td>(6) Advisories:</td> <td> <ul style="list-style-type: none"> • Eligibility for English 125 and 126, eligibility for Mathematics 201 </td> </tr> <tr> <td>(7) Pre-requisites (requires C grade or better):</td> <td> <ul style="list-style-type: none"> • Eligibility for English 252, 262 and Mathematics 256 </td> </tr> <tr> <td>Corequisites:</td> <td> <ul style="list-style-type: none"> • </td> </tr> </table>	(4) Lecture / Lab Hours:		Course Hours		Weekly Lec hours:	36.00	Weekly Lab hours:	9.00	Total Contact hours:	45.00	Lec will generate __ hour(s) outside work.		Lab will generate __ hour(s) outside work.		(5) Grading Basis:	Grading Scale Only		Pass/No Pass option X		Pass/No Pass only	(6) Advisories:	<ul style="list-style-type: none"> • Eligibility for English 125 and 126, eligibility for Mathematics 201 	(7) Pre-requisites (requires C grade or better):	<ul style="list-style-type: none"> • Eligibility for English 252, 262 and Mathematics 256 	Corequisites:	<ul style="list-style-type: none"> • 	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">(8) Classification:</td> </tr> <tr> <td colspan="2">Degree applicable:</td> </tr> <tr> <td colspan="2">Non-degree applicable:</td> </tr> <tr> <td colspan="2">Basic skills:</td> </tr> <tr> <td>(9) RC</td> <td>Fulfills AS/AA degree requirement: (area)</td> </tr> <tr> <td colspan="2">General education category:</td> </tr> <tr> <td colspan="2">Major:</td> </tr> <tr> <td colspan="2">Certificate of:</td> </tr> <tr> <td colspan="2">Certificate in:</td> </tr> <tr> <td>(10) CSU</td> <td>Baccalaureate:</td> </tr> <tr> <td>(11) Repeatable: (A course may be repeated three times)</td> <td style="text-align: center;">0</td> </tr> <tr> <td>(12) C-ID:</td> <td></td> </tr> <tr> <td>Proposed Start Date:</td> <td style="text-align: right;">Fall 2012</td> </tr> </table>	(8) Classification:		Degree applicable:		Non-degree applicable:		Basic skills:		(9) RC	Fulfills AS/AA degree requirement: (area)	General education category:		Major:		Certificate of:		Certificate in:		(10) CSU	Baccalaureate:	(11) Repeatable: (A course may be repeated three times)	0	(12) C-ID:		Proposed Start Date:	Fall 2012
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(12) Catalog Description:
 Foundation Skills in Industrial Technology will supply the basic skills and orientation to enter Reedley College's manufacturing program. Safety, measuring, use of shop tools and power equipment are among the skills that will be introduced and reinforced. Also includes field trips to local manufacturing industry.

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

Upon completion of this course, students will be able to:

- I. Recognize the various types of tools, materials, and processes as they relate to manufacturing technology.
- II. Students will be able to describe basic functions within a manufacturing career pathway of their choice.

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

In the process of completing this course, students will:

- I. Practice using appropriate tools, equipment and materials used in manufacturing.
- II. Practice the safe use of selected shop equipment
- III. Make clear, knowledgeable choices when choosing career opportunities.

IV. COURSE OUTLINE:

Lecture Content:

- A. Shop Safety
 1. Evaluate dangerous situations
 2. Eye protection
 3. Ear protection
 4. Skin protection
 5. Dangers of harmful vapors
- B. Hand tools
 1. Hammers and punches
 2. Hand cutting devices
 3. Identification of basic hand tools

- C. Power tool usage
 - 1. Drilling
 - 2. Tapping
 - 3. Grinders
 - 4. Saw basics

- D. Precision measurement
 - 1. Micrometer
 - 2. Caliper
 - 3. Depth measuring devices
 - 4. Feeler gauges
 - 5. Torque methods

- E. Program familiarity
 - 1. Maintenance Mechanic
 - 2. Machinist
 - 3. Welder

- F. Mechanical Concepts
 - 1. Five basic machine types
 - 2. Energy Uses
 - 3. Visual/spatial relationships

- G. Student success tools
 - 1. Scheduling time
 - 2. Study habits
 - 3. Being prepared
 - 4. Practice

- H. Field trip

Lab Content:

- A. Shop Safety
 - 1. Evaluate dangerous situations
 - 2. Eye protection
 - 3. Ear protection
 - 4. Skin protection
 - 5. Dangers of harmful vapors

- B. Hand tools
 - 1. Hammers and punches
 - 2. Hand cutting devices
 - 3. Identification of basic hand tools

- C. Power tool usage
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 - 3. Being prepared
 - 4. Practice

V. APPROPRIATE READINGS

Reading assignments may include but are not limited to the following:

I. Sample Text Title:

- 1. Recommended - Hoffman, P, J *Precision Machining technology*, Delmar, Cengage Learning, 2012,
- 2. Recommended - Oberg, E *Machinery's Handbook*, ed. 29 Industrial Press, 2012,

II. Other Readings

- Global or international materials or concepts are appropriately included in this course
- Multicultural materials and concepts are appropriately included in this course

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category A, B, or C.

A. Writing			
Check either 1 or 2 below			
	1. Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the space provided.		
X	2. Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree applicable courses you must complete category B and/or C.		
	a) essay exam(s)		d) written homework
	b) term or other paper(s)		e) reading reports
	c) laboratory report(s)		f) other (specify)

Required assignments may include but are not limited to the following:

B. Problem Solving			
Computational or non-computational problem-solving demonstrations, including:			
X	a) exam(s)		d) laboratory reports
X	b) quizzes	X	e) field work
X	c) homework problems		f) other (specify):

Required assignments may include but are not limited to the following:

- 1. Specific skill building task oriented projects.
- 2. Completion of projects requiring the combining of several problem-solving tasks.
- 3. Converting a fractional measurement to decimal and selecting a proper sized drill bit to drill and tap a hole.

C. Skill demonstrations, including:			
X	a) class performance(s)	X	c) performance exams(s)
	b) field work		d) other (specify)

Required assignments may include but are not limited to the following:

- 1. Satisfactory completion of assigned skill building tasks.
- 2. Demonstration of the ability to properly use tools found in various technology fields.
- 3. Satisfactory drill and tap a hole

D. Objective examinations including:			
X	a) multiple choice	X	d) completion
X	b) true/false		e) other (specify):
X	c) matching items		

COURSE GRADE DETERMINATION:

Description/explanation: Based on the categories checked in A-D, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.

Does Course Require Social Facilities? Yes:

Attached Files:

[Manufacturing Pathway](#)

BASIC SKILLS ADVISORIES PAGE The skills listed are those needed for eligibility for English 125, 126, and Math 201. These skills are listed as the outcomes from English 252, 262, and Math 250. In the right hand column, list at least three major basic skills needed at the beginning of the target course and check off the corresponding basic skills listed at the left.

Eligibility for ENGL 126
(as outcomes for ENGL 262)

- apply a variety of vocabulary skills for increased comprehension during reading.
- apply prereading and active reading strategies to increase success with and comprehension of unfamiliar texts.
- analyze expository texts to determine explicit/implicit main ideas and logical support, leading to author's intended meaning.
- determine basic organizational writing patterns to increase comprehension of expository texts.
- distinguish between fact and opinion and determine author's tone and purpose in non-fiction writings.

- Practice using appropriate tools, equipment and materials used in manufacturing.
- Practice the safe use of selected shop equipment
- Make clear, knowledgeable choices when choosing career opportunities.

Check the appropriate spaces.

- Eligibility for Math 201 is advisory for the target course.
- Eligibility for English 126 is advisory for the target course.
- Eligibility for English 125 is advisory for the target course.

If the reviewers determine that an advisory or advisories in Basic Skills are all that are necessary for success in the target course, stop here, provide the required signatures, and forward this form to the department chair, the appropriate associate dean, and the curriculum committee.

REQUISITES

Prerequisite -- ENGL 262 READING IMPROVEMENT

- apply a variety of vocabulary skills for increased comprehension during reading.
- apply prereading and active reading strategies to increase success with and comprehension of unfamiliar texts.
- analyze expository texts to determine explicit/implicit main ideas and logical support, leading to author's intended meaning.

- Practice using appropriate tools, equipment and materials used in manufacturing.
- Practice the safe use of selected shop equipment
- Make clear, knowledgeable choices when choosing career opportunities.

ESTABLISHING PREREQUISITES OR COREQUISITES

Every prerequisite or corequisite requires content review plus justification of at least one of the seven kinds below. Prerequisite courses in communication and math outside of their disciplines require justification through statistical evidence. Kinds of justification that may establish a prerequisite are listed below.

Check one of the following that apply. Documentation may be attached.

Significant statistical evidence indicates that the absence of the prerequisite course is related to unsatisfactory performance in the target course.

Justification: Indicate how this is so.

The health or safety of the students in this course requires the prerequisite.

Justification: Indicate how this is so.

The prerequisite course is part of a sequence of courses within or across a discipline.

The prerequisite is required in order for the course to be accepted for transfer to the UC or CSU systems.

Justification: Indicate how this is so.

The prerequisite/corequisite is required by law or government regulations.

Explain or cite regulation numbers:

The safety or equipment operation skills learned in the prerequisite course are required for the successful or safe completion of this course.

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Justification: Indicate how this is so.

Three CSU/UC campuses require an equivalent prerequisite or corequisite for a course equivalent to the target course:

Justification:

JUSTIFICATION OF LIMITATION ON ENROLLMENT

Enrollment in courses or blocks of courses may be limited based on performance, honors, or other performance based criteria. Be mindful of the disproportionate impact the limitation will have on specific groups of students. It is important to determine if the limitation will disproportionately keep under-represented students from enrolling in the course or block of courses.

Describe the reasons for limiting the enrollment.

Course Designator: IT 205

Course Title(s): FOUNDATION SKILLS IN INDUSTRIAL TECHNOLOGY

Rationale for Limiting Enrollment:

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