CREDIT COURSE OUTLINE

I. COVER PAGE

(1) IT 205	(2) FOUNDATION SKILLS IN INDUSTRIAL TECHNOLOGY	(3) 2
Number	Title	Units

(4)	Lecture / Lab Hours:				(8)Classification:			
	Course Hours							
		Weekly Lec hours:		36.00			Degree applicable:	
		Weekly Lab hours:		9.00			Non-degree applicable:	
		Total Contact hours:		45.00			Basic skills:	
	Lec will generate __ hour(s) outside work.				(9)RC	Fulfills AS/AA degree requirement: (area)		
	Lab will generate __ hour(s) outside work.					General education category:		
(5)	Grading Basis:	Grading Scale Only				Major:		
		Pass/No Pass option		X		Certificate of:		
		Pass/No Pass only				Certificate in:		
(6)	Advisories: • Eligibility for English 125 and 126, eligibility for Mathematics 103				(10)CSU	Baccalaureate:		
(7)	Pre-requisites (requires C grade or better):				(11)Repeatable: (A course may be repeated three times)			0
	Corequisites: •				(12)C-ID:			
					Proposed Start Date:			Fall 2012

(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 manufactuaring 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 measurment
1. Micrometer
2. Caliper
3. Depth measuring devises
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
1. Drilling
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G. Student success tools
1. Scheduling time
2. Study habits
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 Secial Facilities? Yes:

Attached Files:
Manufacturing Pathway

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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)	
__X__ apply a variety of vocabulary skills for increased comprehension during reading.	__X__ Practice using appropriate tools, equipment and materials used in manufacturing.
__X__ apply prereading and active reading strategies to increase success with and comprehension of unfamiliar texts.	__X__ Practice the safe use of selected shop equipment
__X__ analyze expository texts to determine explicit/implicit main ideas and logical support, leading to author's intended meaning.	__X__ Make clear, knowledgeable choices when choosing career opportunities.
_____ determine basic organizational writing pattens to increase comprehension of expository texts.	
_____ distinguish between fact and opinion and determine author's tone and purpose in non-fiction writings.	

Check the appropriate spaces.

_____ Eligibility for Math 201 is advisory for the target course.
__X__ 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
No requisites

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: 0