TAFT COLLEGE
West Kern Community College District

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Board approved: June 10, 2009

Industrial Technology (INTC) 1100 Industrial Technology Capstone (3 Units)

Advisory: Completion of all other required courses in an industrial education or industrial technology program. In addition, eligibility for English 1000, Reading 1005, and Mathematics 1050 is strongly recommended.

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Total Hours: 48 hours lecture

Catalog Description: This course is designed to be the culminating project specific to a program of study. Professional and employment related situations and projects will be explored through a variety of learning methods to include simulations, case studies, scenarios, individual research papers, projects, internships, portfolios and presentations necessary for twenty-first century success. Projects will be based on need and/or interest related to the discipline or profession and agreed upon between the instructor and the student.

Type of Class/Course: Degree Credit

Text: Cohen, Ruth. *Using Experience for Learning*. Open University Press, 1993. Print.

Supplemental Text:
Magolda, Marcia B. Baxter. *Creating Contexts for Learning and Self-Authorship*. Vanderbilt University Press, 2000. Print.

Course Objectives:

By the end of this course, a successful student will be able to

1. apply technical skills to situations and research,
2. synthesize theory and facts into plans and projects,
3. design and create possible solutions to workplace challenges
4. propose and defend a technological solution,
5. demonstrate the ability to research current workplace issues and provide an analysis of theories and issues involved, and
6. present a formal report and/or project detailing a problem, its dimensions, possible solutions and rationale for them, recommendation with justification, and an evaluation plan.

Course Scope and Content:

Unit I Introduction

A. Overview

Unit II Design of Project

A. Research
B. Study
C. Design of Project

Unit III Development

A. Development of Project
B. Implementation of Project
C. Presentation of Project
D. Report

Learning Activities Required Outside of Class:

The students in this class will spend a minimum of 6 hours per week outside of the regular class time doing the following:

1. Crafting an appropriate bibliography to support the project
2. Reading the required text and other background materials for class
3. Answering questions
4. Studying class materials and notes
5. Performing literature searches
6. Problem solving activities and exercises
7. Preparing projects
8. Working on group exercises
9. Using technological skills to create products

Method of Instruction:

1. Orientation sessions with instructor
2. Lecture and discussion
3. Group activities
4. Role-playing and practice exercises
5. Demonstrations
6. Hands-on use of technology

Methods of Evaluation:

1. Written assignments
2. Participation
   a. Role-playing and group activities
   b. Oral presentations and demonstrations
   c. Discussion responses
   d. Scenario reflections
3. Projects
   a. Multimedia presentations
   b. Technological scenario responses
   c. Formal written reports
   d. Portfolios
   e. Samples