

Course Outline of Record

Los Medanos College

2700 East Leland Road

Pittsburg CA 94565

(925) 439-2181

Course Title: Industrial Technology Career Preparation

Subject Area/Course Number: PTEC-060

New Course OR Existing Course

Instructor(s)/Author(s): Jim Martin

Subject Area/Course No.: PTEC-060

Units: 1

Course Name/Title: Industrial Technology Career Preparation

Discipline(s): Manufacturing Technology, Industrial Technology, Sanitation and Public Health

Pre-Requisite(s): None

Co-Requisite(s): None

Advisories: Eligibility for ENGL-090

Catalog Description:

In this course, the student will learn about the phases of pre-employment including resume and application writing, pre-employment testing, and the all important interview. The student will learn about critical interviewing skills such as actions to take before the interview, how to dress, promptness, typical industry-type interviews, conduct during the interview, typical questions one might be asked, the STAR question process, industrial technology subject categories, questions to ask and not to ask during the interview, and interview follow up. The student will learn how to obtain a *Transportation Workers Identification Credential (TWIC Card)* and apply for *BAT Safety Training certification* and why these credentials are important in obtaining employment. Each student will participate in a *mock interview* similar to the interviews given by industrial technology companies.

Schedule Description:

Why is it that some industrial technology graduates have excellent technical skills, but are unable to obtain employment? How important is a resume? What type of pre-employment tests are given for industrial technology positions? What skills are needed to do well in an interview? What are the dos and don'ts of effective interviewing? What other actions should one take to increase the probability of being offered a job? This course, along with the course, *Industrial Technology Career Skills*, provides the industrial technology graduate with the skills to obtain a job and excel in the competitive world of industrial technology.

Hours/Mode of Instruction: Lecture 18 Lab Composition Activity Total Hours 18
(Total for course)

Credit Credit Degree Applicable (DA)
 Credit Non-Degree (NDA)
(If Non-Credit desired, contact Dean.)

Grading Pass/No Pass (P/NP)
 Letter (LR)
 X Student Choice (SC)

Repeatability 0
 1
 2
 3

Please apply for:

LMC General Education Requirement and/or Competency & Graduation Requirement(s): None

Transfer to: CSU UC IGETC LDTP Course is Baccalaureate Level: Yes No

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Signatures:

Department Chair _____ Date _____

Librarian _____ Date _____

Dean/Sr. Dean _____ Date _____

Curriculum Committee Chair _____ Date _____

President/Designee _____ Date _____

CCCCD Approval Date (Board or Chancellor's Office) _____ Date _____

For Curriculum Committee Use only:

STAND ALONE COURSE: YES NO

FOR OFFICE OF INSTRUCTION ONLY. DO NOT WRITE IN THE SECTION BELOW.

Begin in Semester _____

Catalog year 20____/20____

Class Max: _____

Dept. Code/Name: _____

T.O.P.s Code: _____

Crossover course 1/2: _____

ESL Class: Yes / No

DSPS Class: Yes / No

Coop Work Exp: Yes / No

- Class Code**
- A Liberal Arts & Sciences
 - B Developmental Preparatory
 - C Adult/Secondary Basic Education
 - D Personal Development/Survival
 - E For Substantially Handicapped
 - F Parenting/Family Support
 - G Community/Civic Development
 - H General and Cultural
 - I Career/Technical Education
 - J Workforce Preparation Enhanced
 - K Other non-credit enhanced
 - Not eligible for enhanced

- SAM Code**
- A Apprenticeship
 - B Advanced Occupational
 - C Clearly Occupational
 - D Possibly Occupational
 - E* Non-Occupational
 - F Transfer, Non-Occupational
- *Additional criteria needed*
- 1 One level below transfer
 - 2 Two levels below transfer
 - 3 Three levels below transfer

- Remediation Level**
- B Basic Skills
 - NBS Not Basic Skills

Course approved by Curriculum Committee as Baccalaureate Level: Yes / No

LMC GE or Competency Requirement Approved by the Curriculum Committee: _____

Distribution: Original: Office of Instruction
Copies: Admissions Office, Department Chairperson
Rev 09-17-2008

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Institutional Student Learning Outcomes

- General Education SLOs (Recommended by GE Committee)**
At the completion of the LMC general education program, a student will:
1. Read critically and communicate effectively as a writer and speaker.
 2. Understand connections among disciplines and apply interdisciplinary approaches to problem solving.
 3. Think critically and creatively
 4. Consider the ethical implications inherent in knowledge, decision-making and action.
 5. Possess a worldview informed by diverse social, multicultural and global perspectives.
- X **Occupational Education SLOs (Recommended by Occupational Education Committee)**
At the completion of the LMC occupational certificate or degree, a student will:
1. X Be academically prepared to **obtain an entry-level or a mid-level position** in their industry.
 2. X Apply **critical thinking** to research, evaluate, analyze and synthesize information.
 3. X Demonstrate strong **communication skills** (written and/or oral) and **interpersonal skills** (customer service and team work).
 4. Appropriately apply **industry materials and technology**.
 5. Demonstrate the skills and knowledge necessary to take and pass **certification exams** for career **advancement** in their industry.
- Developmental Education SLOs (Recommended by Developmental Education Committee)**
At the completion of the LMC Developmental Education Program, a student will:
1. Demonstrate the skills necessary for the first transfer level courses in English and Math or for the English and Math competencies for the Certificate of Achievement.
 2. Think critically to construct meaning and solve problems.
 3. Read with comprehension.
 4. Communicate effectively both in writing and orally.
 5. Demonstrate the characteristics, habits, and attitudes of an effective learner.
- Student Services SLOs**
1. LMC students will demonstrate proficiency in the use of college on-line services.
 2. LMC students will demonstrate proficiency in self-advocacy.
- Library and Learning Support Services SLOs**
LMC students utilizing various Library and Learning Support Services will:
1. Access and effectively utilize available campus Library and Learning Support Services.
 2. Apply knowledge learned and competencies gained from using Library and Learning Support Services to academic coursework and assignments.
 3. Demonstrate information competency skills needed to meet the research demands of academic course work and life long learning.
- None of the Above**

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Program-Level Student Learning Outcomes (PSLOs)

1. Be academically and experientially prepared to obtain an entry level position in the chemical, refining, oil, and gas production, water, waste management, food, and related manufacturing industries. **(OESLO 1)**
2. Apply critical thinking to research, evaluate, analyze and synthesize information to solve problems related to process equipment, instruments, systems, and operations within the chemical, refining, oil and gas production, water, waste management, food, and related industries. **(OESLO 2)**
3. Demonstrate excellent communication skills (oral and written) to ensure optimal communications with shift co-workers, first line supervisors, maintenance personnel, safety personnel, contractors, and other members of the manufacturing site team. **(OESLO 3)**
4. Demonstrate knowledge of the process technology and apply the technical skills necessary to operate complex process equipment and systems such as distillation, fired boilers, refrigeration, cooling tower, reactor, and similar unit operations. **(OESLO 4)**

Course-Level Student Learning Outcomes (CSLOs):

1. Apply skills to professionally portray oneself during an interview for a position in petrochemical and related industries. **(PSLO 1, 2, 3)**
2. Acquire mechanical aptitude and spatial relations skills. **(PSLO 1, 2, 4)**
3. Write a resume aimed at employment in the petrochemical and related industries. **(PSLO 1)**

Assessments:

	Class Participation	MOCK Interview	Homework	Tests and Exams
CLSO 1	X	X	X	X
CLSO 2			X	X
CLSO 3	X		X	X

1. CLSO 1. Apply skills to professionally portray oneself during an interview for a position in petrochemical and related industries.

Class Participation: Students will respond to instructor's questions and comments regarding correct interview skills. Students will ask questions or make comments during class which in regard to interview skills. Students will be expected to correctly answer questions, add comments, or ask questions for clarification on a regular basis in regard to correct interview skills.

MOCK Interview: Students are given information regarding the components of a successful interview including personal behavior/appearance items such as eye contact, posture, grammar, etc. Students will engage in a mock interview where they will be assessed for applying these skills to professionally portray oneself in this interview process.

Homework and Tests: Students will demonstrate an understanding of interviewing skills by correctly answering questions on homework and tests. An example of a homework or test question would be:

Question: Describe the factors that determine how one should dress for an interview.

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Final Exam: Students will demonstrate an understanding of interviewing skills by correctly answering questions on the final exam. An example of an exam question would be:

Question: What is the importance of being *concise* when responding to a question during an interview?

Question: What does the *STAR* acronym stand for?

CLSO 2: Use mechanical aptitude and special relations skills on pre-employment tests for industrial technology.

Homework and test: Students will be given homework questions and tests that ask students to answer mechanical aptitude spatial relationships questions typically tested for on industrial pre-employment tests. This will help prepare them for taking mechanical aptitude spatial relationships pre-employment tests as they interview for jobs.

CLSO 3: Write a resume aimed at employment in the petrochemical and related industries

Participation: Students will participate in class discussions on writing a resume aimed at employment in the petrochemical and related industries.

Homework: On homework assignments, students will learn the necessary components of a resume for the petrochemical and related industries. They will learn how to both write and critique their own resumes aimed at employment in the petrochemical and related industries. An example of a homework question which allows students to demonstrate their ability to critique a resume is:

Question: Which of the following are typically not included on a resume?

- Answer:**
- a. Age
 - b. Work experience
 - c. Race
 - d. Education
 - e. Marital status
 - f. Extra curricular activities
 - g. Recent accomplishments

Tests and Exams: On tests and exams, students will demonstrate an ability to write a resume aimed at employment in the petrochemical industry.

An example of a test question that allows students to demonstrate their knowledge of a correct resume is:

Question: Should I include my work experience at McDonalds on my resume?

Method of Evaluation/Grading:

An A level student's work is characterized by participating in every class on a regular basis by correctly answering questions asked by the instructor, asking meaningful questions for clarification of class materials, and/or contributing to discussions of class subjects regarding interview skills. During an A level mock interview the student would provide answers to the four interview questions that are at least 90% correct and receive a "great" rating on personal behavior/appearance items such as eye contact, posture, grammar, etc. An A level student's work is characterized by completion of all homework assignments, test and the final exam and providing detailed answers to questions that are at least 90% accurate regarding interview skills related to the petrochemical industry. The A Level work for resume writing student would include a chronological, functional, or blended resume for the student that best fits their situation based upon the criteria presented in the class. The resume submitted will include a specific employment objective in the petrochemical or related industries, a professional e-mail address, transferable

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skills, work history that highlights their experience relevant to the process technologist career, and educational credentials including the process technology certificate or associate degree. An A Level students work on mechanical aptitude and spatial relations would be characterized by a proficiency of 90% or better on homework and tests.

C level student's work is characterized by participating in class at least 50% of the time by answering questions, asking questions for clarification and/or contributing to class discussions, regarding the use of soft skills and interview skills. A level student's work is characterized by completion of homework assignments, test and the final exam and providing. During a C Level mock interview the student would provide answers to the four interview questions that are at least 70% correct and receive at least a "good" rating on personal behavior/appearance items such as eye contact, posture, grammar, etc. The C Level work for resume writing would include a chronological, functional, or blended resume for themselves that fits their situation based upon the criteria presented in the class but may not be the optimal type. The resume submitted will include a specific employment objective in the petrochemical or related industries. The e-mail address may not be professional such as jdoo@gmail.com but rather unprofessional such as drunkstudent@hotmail.com. The resume may include some transferable skills but may not reflect those skills clearly. The work history in the resume may highlight their experience but not relate that experience directly to the process technologist career. The resume will list educational credentials including the process technology certificate or associate degree. A C Level students work on mechanical aptitude and spatial relations would be characterized by a proficiency of 70% or better on homework and tests.

The relative weighting of the CSLOs are;

CSLO 1, will account for approximately 50%

CSLO 2, will account for approximately 30%

CSLO 3, will account for approximately 20%

Class participation	30%
Mock Interview	30%
Tests	20%
Final Exam	20%

This course will be a Student Choice course. The grading policy will be:

A = 100 – 90%

B = 89 -80%

C = 79 – 70%

D= 69 – 60%

F = 59 – 0%

Course Content:

- I. Effective Interview Skills
 - a. Appearance and Dress
 - b. STAR Interview Process
 - i. Question Categories
 - ii. Specificity
 - c. Preparation
 - d. Promptness
 - e. Conduct During the Interview
 - i. Eye Contact
 - ii. Hand Shake
 - iii. Hand and Body Movement/Position

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- iv. Taking Notes
- v. Conciseness
- vi. Questions to Ask and Not Ask
- II. Mechanical aptitude and spatial relations.
 - a. Shop arithmetic and calculation.
 - b. Gears and pulleys.
 - c. Matching parts and figures.
 - d. Cube counting.
 - e. Pattern analysis.
 - f. Figure turning.
 - g. Perceptual ability.
 - h. Map skills.
 - i. Mechanical insight.
- III. Resume writing and interview skills workshop.
 - a. Chronological resume.
 - b. Functional resume.
 - c. Blended resume.
 - d. What to include in the work experience section.
 - e. Professionalism.
 - f. Transferable skills.
- IV. Petrochemical Job Credentials
 - a. TWIC Card (Transportation Workers Identification Credential)
 - b. BAT Card (Safety Training Certification)

Instructional Methods:

- Lecture
- Lab
- Activity
- Problem-based Learning/Case Studies
- Collaborative Learning/Peer Review
- Demonstration/Modeling
- Role-Playing
- Discussion
- Computer Assisted Instruction
- Other (explain) _____

Textbooks:

Joan Levy, *Mechanical Aptitude and Spatial Relations Tests*, Arco Publishing, Seventh Edition, 2010.