



Course Information

Course Title	Process Technology III
Course Prefix, Num. and Title	PTAC 2438 Process Technology III
Division	Vocational Science
Department	Process Technology
Course Type	WECM Course
Course Catalog Description	This course emphasizes activities associated with the hands-on operation of process equipment.
Pre-Requisites	PTAC 1410 and PTAC 1432 or concurrent enrollment in PTAC 2420
Co-Requisites	Enter Co-Requisites Here.

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours:	4:3:2
Lab/Other Hours	
Equated Pay Hours	4
Lab/Other Hours Breakdown: Lab Hours	2
Lab/Other Hours Breakdown: Clinical Hours	Enter Clinical Hours Here.
Lab/Other Hours Breakdown: Practicum Hours	Enter Practicum Hours Here.
Other Hours Breakdown	List Total Lab/Other Hours Here.

Approval Signatures

Title	Signature	Date
Prepared by:		
Department Head:		
Division Chair:		
Dean/VPI:		
Approved by CIR:		

Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Introduction to Process Operations	One week
Routine Duties of the Process Technician	One week
Unit Startup and Shutdown	One week
Material Handling, Sampling and Analysis	One week
Non-routine Operations	One week
Safe Operating Techniques, Turnaround Activities	One week
Procedures	One week
Communications, Maintenance for the Process Technician	One week
Lab Work:	
Developing Capstone Project	Six weeks
*Drawing P&ID's of Process Unit	
*Writing Startup procedures for Process Unit	
*Writing Shutdown procedures for Process Unit	
*Writing Emergency procedures for Process Unit	
*Writing Evaluation Sheet for Process Unit.	

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:

Operate various process systems; work in self-directed teams; write and follow safety and operational procedures; collect and use data for determination of process specifications.

SKILL STANDARDS LEARNING OUTCOMES

The following list of learning outcomes are Key Activities from the Chemical/Refining Process Technician skill standards, developed by the North American Process Technology Alliance (NAPTA), and recognized by the Texas Skill Standards Board (TSSB). These outcomes have been integrated into the PTAC-2438, Process Technology II – Operations Systems course.

1. Monitor and Regulate Distillation System
2. Monitor and Regulate Continuous Reaction System
3. Monitor and Regulate Steam System
4. Monitor and Regulate Utility Air System
5. Receive chemical materials.
6. Store chemical materials
7. Transfer chemical materials

Methods of Assessment:

Written Exams
 Operations of training skids performance
 Team presentation

Required text(s), optional text(s) and/or materials to be supplied by the student:

Process Operations Pearson Custom Publishing

Suggested Course Maximum: 20

List any specific or physical requirements beyond a typical classroom required to teach the course.

Hands on Training skids

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

1. Major tests (including mid-term)
2. Cross Disciplinary Skills (work ethic, safety, teamwork, housekeeping, independent thinking and problem solving, attitude, daily performance including preparation, computer proficiency)
3. Special Team Projects
4. Final examination

The following method is used to arrive at the final grade:

Major Tests	30%
Daily Grade (Homework, Cross Disciplinary skills)	20%
Special Team Project	30%
Final Exam	20%

The grade classifications as outlined in the College Catalog are employed:

A	Excellent	100-90
B	Good	89-80
C	Average	79-70
D	Poor (lowest passing grade)	69-60
F	Failure	59 and below

Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
 - Critical Thinking
 - Communication
 - Empirical & Quantitative Skills
 - Teamwork
 - Social Responsibility
 - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist