Introduction to Process Technology (PTAC 1302) Online

Credit: 3 semester credit hours (3 hours lecture)

Prerequisite/Co-requisite: None Complete the Online Orientation and answer yes to 7+ questions on the Online Learner Self-Assessment: http://www.lit.edu/depts/DistanceEd/OnlineOrientation/OOStep2.aspx

Course Description
An introduction overview of the process industries. This course is time-bound, structured, and completed totally online.

Required Textbook and Materials
1. Introduction to Process Technology, Pearson, Second Edition
   a. ISBN number is 0-13-480824-X

Course Objectives
Upon completion of this course, the student will be able to:
1. Describe the roles, responsibilities, safety, environmental, and quality concepts associated with the work environment of a process technician.
2. Identify basic processes, equipment and systems.
3. Define and apply terms and symbols needed in the processing industry.

Course Outline
A. Introduction
   1. An Overview
   2. Oil and Gas Mining
   3. Chemical and Pharmaceutical Ind.
   4. Power Generation Ind.
   5. Food and Beverage Ind.
   6. Water and Wastewater Treatment
   7. Pulp and Paper Industry
B. Skills for Process Technicians
   1. Working as Teams
   2. Safety, Health, Environment & Security
   3. Quality.
C. Basic Knowledge for Process Techs.
   1. Basic Physics
   2. Basic Chemistry
   3. Process Drawings
D. Equipment Used in Process Technology
   1. Piping and Valves
   2. Vessels
   3. Pumps
   4. Compressors
   5. Turbines
   6. Electricity and Motors
   7. Heat Exchangers
   8. Cooling Towers
   9. Furnaces
   10. Boilers
   11. Distillation
   12. Process Service Utilities
   13. Process Auxiliaries
   14. Instrumentation

Approved 04/2015
Grade Scale
90 – 100 A
80 – 89 B
70 – 79 C
60 – 69 D
0 – 59 F

Course Evaluation
Final grades will be calculated according to the following criteria:
Assignments 20%
Discussions 10%
Tests 40%
Final 30%

Course Requirements
1. Post weekly, online responses to student-to-student and student-to-instructor discussions.
2. Complete the online test, quizzes and assignments by the due dates shown on the course calendar
3. Log onto Blackboard and access the course a minimum of three times per week.

Course Policies
1. You must log onto Blackboard and access this course a minimum of three times per week.
2. No cheating of any kind will be tolerated. Students caught cheating or helping someone to cheat can and will be removed from the class for the semester. Cheating can result in expulsion from LIT.
3. If you wish to drop a course, the student is responsible for initiating and dropping the course. If you stop logging-in to the course and do not complete the course drop process, then you will receive an “F” grade for the course
4. Internet Usage – Students are expected to use proper net etiquette while participating in course emails, assignment submissions, and online discussions.
5. A student who wishes to drop a course is responsible for initiating and completing the drop process. A student who stops coming to class, and fails to drop the course, will earn an “F” in the course.

Student Code of Conduct Statement
It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the LIT Catalog and Student Handbook. The LIT Catalog and Student Handbook may be accessed at www.lit.edu or obtained in print upon request at the Student Services Office.

Approved 04/2015
Technical Requirements
The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at:
http://kb.blackboard.com/pages/viewpage.action?pageId=25368512
A functional broadband internet connection, such as DSL, cable, 3G, 4G, WiMAX, Wi-Fi, satellite, or other broadband access is necessary to maximize the use of the online technology and resources.

Disabilities Statement
The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

If you believe you have a disability requiring an accommodations, please reference the following website http://www.lit.edu/depts/stuserv/special/default.aspx

Supplemental Instruction
Supplemental Instruction (SI) consists of group tutoring sessions conducted once a week for 50 minutes for selected subjects. The SI Leader is a peer who helps students learn difficult content in those specific courses. The SI Leader attends the class with the students to keep up with the course content and engage students in interactive learning strategies at the 50 minute sessions. For this course, the supplemental instruction session will be held on WE DO NOT HAVE SUPPLEMENTAL INSTRUCTION. See your instructor for assistance.

Starfish
LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.
# Course Schedule (Subject to Change)

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<th>Topic</th>
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<td>Syllabus, Netiquette Link Introduction Quiz</td>
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<td>Chapter 1-7 – Process Technology</td>
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<td>3</td>
<td>Working as Teams</td>
<td>Chapter 8 Assignment 1 Discussion 1</td>
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<td>4</td>
<td>Safety, Health, Environment and Security Quality **TEST 1 – Chapter 1-10</td>
<td>Chapter 9 &amp; 10</td>
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<td>5</td>
<td>Basic Physics Basic Chemistry</td>
<td>Chapter 11 &amp; 12 Assignment 2 Discussion 2</td>
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<td>6</td>
<td>Process Drawings **TEST 2 – Chapters 11-13</td>
<td>Chapters 13</td>
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<td>7</td>
<td>Piping &amp; Valves, Vessels, Pumps</td>
<td>Chapter 14, 15 &amp;16</td>
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<td>8</td>
<td>Compressors, Turbines, Electricity and Motors</td>
<td>Chapter 17,18,19 Assignment 3</td>
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<td>**TEST 3 – Chapters 14-19</td>
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<td>Heat Exchangers, Cooling Towers</td>
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<td>Furnaces **TEST 4 - Chapters 20-22</td>
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<td>Distillation **TEST 5 - Chapters 23-24</td>
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<td>Process Auxiliaries</td>
<td>Chapter 26 Discussion 4</td>
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<td>16</td>
<td>Instrumentation **TEST 6 – 25-27</td>
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<td>17</td>
<td>Finals Week</td>
<td>Chapters 1- 27</td>
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