Brazosport College

Syllabus for CTEC 1291 - Special Topics - Equipment

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I. COURSE DESCRIPTION

CTEC1291 - Special Topics - Equipment. CIP 4103010003

Hands on, familiarization and operation of tools, basic process equipment, and instrumentation found and used in the chemical industry. **Credit Hours:** 2 (2 Lecture, 0 Lab)

 Chad Abney
 Ron Colwell

 Gregg Curry
 Mark Farrar

 Mark Mehl
 Kenneth Resecker

 Edward Smolen
 Mark Stoltenberg

Gary Hicks

Jeff Detrick

August 2020

II. COURSE OBJECTIVES

- Identify basic process valves and identify their open/closed state.
- Follow a basic operating procedure lining up equipment (tanks, pumps, heat exchangers, filters, and a control valve station) and circulating a liquid, learning basic field operation.
- Use basic process tools:
 - Valve wrench to open and close valves
 - Use of channel locks to tighten valve packing
 - Use of a pipe wrench to fabricate a simple piping assembly
 - Use of open-end wrenches, tubing cutters, and tubing benders to assemble tubing and high-pressure compression fittings.
- Identify a centrifugal pump and associated components.
- Identify a heat exchanger and identify 'tube side' and 'shell side' pipe entry and exit points.
- Demonstrate competency in process equipment basics by passing a skills test.
- Introduction to equipment clearing, including job planning, procedure writing, clearing line installation, clearing, isolation and tagging, and permit writing.

III. TEXTBOOK OR COURSE MATERIAL INFORMATION

A. Textbook

- 1. Process Technology Equipment, CAPT., Inc., Pearson Publish 2019. ISBN: 978-0-13-489126-2
- 2. Process Equipment Lab Exercises, BC Custom Publish, Nov., 2019.
- 3. Safety Glasses

Required course materials are available at the Brazosport College bookstore, on campus or online at <u>http://brazosport.edu/bookstore/home.html</u>. A student of this institution is not under any obligation to purchase a textbook from the college bookstore. The same textbook is/may also be available from an independent retailer, including an online retailer.

For Distance Education Courses include the following: Contact the Brazosport College Bookstore with a credit card for course materials. Phone: 979-230-3651. Fax: 979-230-3653. Email:<u>bookstore@brazosport.edu</u>. Website: <u>http://brazosport.edu/bookstore/home.html.</u>

B. Course Outline

This is a sample outline, which may vary with individual instructors. It will also vary on whether the course is a summer course or a fall/spring course. Students should contact their instructor of the outline of the course they are taking.

| Class | Lecture | Lab | Quiz |
|-------|-----------------|------------------------|------|
| Day 1 | Chapters 1&2 | Equipment Exercises | |
| Day 2 | Chapters 3 & 11 | Equipment Exercises | 1&2 |
| Class | Lecture | Lab | Quiz |

| Day 3 | Chapters 4,5,&6 | Equipment Exercises | 3&4 |
|-----------|--|------------------------|------------|
| Day 4 | Chapter 17 | Equipment Exercises | 5 |
| Day 5 | None | Skills Test | Final Exam |
| Day 5 & 6 | Maintenance Skills & Clearing Class | Clearing Exercises | |

Important Semester Dates:

Last Day to Withdraw from Classes– Check BC Academic Calendar http://catalog.brazosport.edu/index.php

IV. LAB REQUIREMENTS

Hard Hats, Side Shield Glasses, Gloves and Hearing Protection

V. STUDENTS WITH DISABILITIES

Brazosport College is committed to providing equal education opportunities to every student. BC offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. For student to receive any accommodation, documentation must be completed in the Office of Disability Services. Please contact Phil Robertson, Special Populations Counselor at 979-230-3236 for further information.

VI. TITLE IX STATEMENT

Brazosport College faculty and staff are committed to supporting students and upholding the College District's non-discrimination policy. Under Title IX and Brazosport College's policy FFDA (Local), discrimination based on sex, gender, sexual orientation, gender identity, and gender expression is prohibited. If you experience an incident of discrimination, we encourage you to report it. While you may talk to a faculty or staff member at BC, please understand that they are "Responsible Employees" and must report what you tell them to college officials. You can also contact the Title IX Coordinators directly by using the contact information below. Additional information is found on the Sexual Misconduct webpage at <u>www.brazosport.edu/sexualmisconduct</u>

VII. ACADEMIC HONESTY

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately. Please refer to the Brazosport College Student Guide for more information. This is available online at http://brazosport.edu/students/for-students/student-services/.

Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.

VIII. ATTENDANCE AND WITHDRAWAL POLICIES

Class attendance contributes to your final grade, but you must attend class to successfully complete the course. If you are unable to complete this course, you must complete and submit a withdrawal form with the registrar's office. If the student decides to drop out of the class it is the responsibility of the student to initiate a withdrawal before the withdrawal deadline in order to get a "W" on their transcript. If this is not done the student will receive a grade based on test grades and class grades earned during their attendance and absence (i.e. zeros on all missed materials, exams, skills tests, and final exam).

IX. COURSE REQUIREMENTS AND GRADING POLICY TESTING MAKE-UP POLICY

A. Grading

| Quizzes | 25% |
|-------------|-----|
| Skills Test | 50% |
| Final Exam | 25% |

Grades are assigned as follows:

| Grade | Final Average |
|-------|---------------|
| А | 90-100 |
| В | 80-89 |
| С | 70-79 |
| D | 60-69 |
| F | Below 60 |

X. STUDENT CONDUCT STATEMENT

Students are expected to be aware of and follow the Brazosport College Student Code of Conduct. Students have violated the Code if they "fail to comply with any lawful directions, verbal or written, of any official at BC." Lawful directions include precautions and requirements taken to prevent the spread of COVID-19 at Brazosport College. Students who do not follow safety requirements, including the wearing of a mask, may be removed from class by their instructor and referred to the Dean of Student Services.

XI. CAMPUS CLOSURE STATEMENT

Brazosport College is committed to the health and safety of all students, staff, and faculty and adheres to all federal and state guidelines. The College intends to stay open for the duration of the semester, and provide access to classes and support services on campus in the safest way possible. The College will also comply with lawful orders given by applicable authorities, including the Governor of Texas, up to and including campus closure. It is possible that on campus activities may be moved online and/or postpone if such orders are given.

XII. STUDENT RESPONSIBILITIES

Students are expected to fully participate in this course. The following criteria are intended to assist you in being successful in this course:

- 1. Understand the syllabus requirements
- 2. Use appropriate time management skills
- 3. Communicate with the instructor
- 4. Complete course work on time, and
- 5. Utilize online components (such as Desire2Learn) as required.

XIII. OTHER STUDENT SERVICES INFORMATION

Information about the Library is available at <u>http://brazosport.edu/students/for-students/places-services/library/about-the-library/</u> or by calling 979-230-3310.

For assistance with online courses, an open computer lab, online and make-up testing, audio/visual services, and study skills, visit Learning Services next to the Library, call 979-230-3253, or visit http://brazosport.edu/students/for-students/places-services/learning-services/.

For drop-in math tutoring, the writing center, supplemental instruction and other tutoring including e-tutoring, visit the Student Success Center, call 979-230-3527, or visit <u>http://brazosport.edu/students/for-students/student-success-center/</u> To contact the Physical Sciences and Process Technologies Department call 979-230-3618.

The Student Services provides assistance in the following:

| Counseling and Advising | 979-230-3040 |
|-------------------------|--------------|
| Financial Aid | 979-230-3294 |
| Student Life | 979-230-3355 |

To reach the Information Technology Department for computer, email, or other technical assistance call the Helpdesk at 979-230-3266.



Get the information you need – when you need it. Click <u>http://geni.us/BRAZO</u> to install **BC Connect** on your mobile device to receive reminders, explore careers, map your educational plan, be in the know about events, find out about scholarships, achieve your goals and much more.