

# 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)**

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Chad Abney

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Allen Baragar

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Ron Colwell

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Gregg Curry

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Mark Farrar

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David Hendrix

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Mark Stoltenberg

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Gary Hicks

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Jeff Detrick

January 2019

## 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 operations.
- 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., 1<sup>st</sup>, 2010, Pearson Publisher ISBN: 978-0-13-700412-6
2. Equipment Exercises, Hendrix/Colwell, BC Custom Publish, November 2018.

Required course materials are available at the Brazosport College bookstore, on campus or online at <http://brazosport.edu/bookstore/home.html>. 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: [bookstore@brazosport.edu](mailto:bookstore@brazosport.edu). Website: <http://brazosport.edu/bookstore/home.html>.

### 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

<b>Day 4</b>	<b>Chapter 17</b>	<b>Equipment Exercises</b>	<b>5</b>
<b>Day 5</b>	<b>None</b>	<b>Skills Test</b>	<b>Final Exam</b>
<b>Day 5 &amp; 6</b>	<b>Maintenance Skills &amp; Clearing Class</b>	<b>Clearing Exercises</b>	<b>--</b>

### **Important Semester Dates:**

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

## **V. LAB REQUIREMENTS**

Hard Hats, Side Shield Glasses, Gloves and Hearing Protection

## **VI. 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.

## **VII. 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 [www.brazosport.edu/sexualmisconduct](http://www.brazosport.edu/sexualmisconduct).

Kelli Forde Spiers, Director, Student Life and Title IX Coordinator  
Office J-117D; 979-230-3355; [kelli.fordespiers@brazosport.edu](mailto:kelli.fordespiers@brazosport.edu)

Victoria Young, HR Coordinator and Deputy Title IX Coordinator  
Office C-114; 979-230-3303; [victoria.young@brazosport.edu](mailto:victoria.young@brazosport.edu)

## **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
A	90-100
B	80-89
C	70-79
D	60-69
F	Below 60

### **X. 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.

### **XI. OTHER STUDENT SERVICES INFORMATION**

Information about the Library is available at <http://brazosport.edu/students/for-students/places-services/library/about-the-library/> 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 <http://brazosport.edu/students/for-students/student-success-center/>

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 <http://geni.us/BRAZO> 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.