Brazosport College

Syllabus for CHEM 1112 - General Chemistry II Laboratory

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I. COURSE DESCRIPTION

CHEM 1112 - General Chemistry II Laboratory. CIP 4005015203 Credit in **CHEM 1312** as a laboratory science is contingent upon successful completion of CHEM 1112. **Credit Hours:** 1 (0 lecture, 3 lab)

Dr. Judy Chu

Dr. Kirby Lowery

Gary Hicks

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A. Prerequisite: Grade of "C" or better in CHEM 1111 and successful completion of, or concurrent enrollment in CHEM 1312.
 Required skill level: College-level reading, writing and math.

II. COURSE OBJECTIVES

The course is designed to help the student:

SAFETY

We will do experiments safely or we will not do them

- 1. Wear splash proof goggles or glasses at all times
- 2. Know the exact location and operation of all safety equipment.
- 3. Never work alone in the lab.
- 4. Do only the experiment assigned by your lab instructor.
- 5. Wear clothing that will provide the maximum possible protection.
- 6. Place such things as purses, backpacks, sweaters, coats, scarves, and extra books in designated areas.
- 7. Never eat, drink, smoke, chew, or apply lipstick in the laboratory.
- 8. Dispose of waste materials according to the directions of your laboratory instructor. Help keep the laboratory clean at all times.
- 9. Help keep the laboratory clean at all times.
- 10. Use a fume hood when directed to do so.
- 11. Use good judgment and care when working in the lab.
- 12. Avoid touching hot objects.
- 13. Read the labels on reagent bottle before using them.
- 14. Wash your hands thoroughly before leaving the lab.

Immediately report all physical and chemical injuries to your laboratory instructor, no matter how minor.

III. STUDENT LEARNING OUTCOMES

- 1. Demonstrate safe and proper handling of laboratory equipment and chemicals.
- 2. Use basic apparatus and apply experimental methodologies used in the chemistry laboratory.
- 3. Conduct basic laboratory experiments with proper laboratory techniques.
- 4. Make careful and accurate experimental observations.
- 5. Relate physical observations and measurements to theoretical principles.
- 6. Interpret laboratory results and experimental data and reach logical conclusions.
- 7. Record experimental work completely and accurately in laboratory notebooks and communicate experimental results clearly in written reports.
- 8. Design fundamental experiments involving principles of chemistry.
- 9. Identify appropriate sources of information for conducting laboratory experiments involving principles of chemistry.

IV. TEXTBOOK OR COURSE MATERIAL INFORMATION A. Textbook

- 1. Signature Labs Series, General Chemistry II Lab, CER 2008, Publisher Cengage Learning. ISBN: 978-1-3057628-1-7 (required)
- 2. Visorgogs or safety goggles, must meet ANSI Z87.1-1989 certification. (required)

Required course materials are available at the Brazosport College bookstore, on campus or online at <u>http://brazosport.edu/bookstore/home.html.</u> Students are 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>http://brazosport.edu/bookstore/home.html</u>.

Connecting To Supplemental Class Material:

Access the course by going to: <u>https://online.brazosport.edu/index.asp</u> Follow the instructions in "How to Access Desire2Learrn" to login to the course in Desire2Learn. For help with login to Desire2Learn, email your problems to <u>helpdesk@brazosport.edu</u>

This is the laboratory course to be taken in conjunction with CHEM 1312.

- 1. Labs will be held at the regular lab time Mondays at 1:00 PM.
- 2. Login to D2L and enter the lab course. (Scroll to the bottom of the document to see D2L login instructions.)
- 3. During lab class time (Mondays, 1-4 PM), we will hold virtual classroom in D2L. Questions can be answered in real time via the chat room in the virtual classroom or by asking your questions directly using you microphone. To access the virtual classroom, select the "Communication" tab and drop down to "Zoom Meeting". (You must use Chrome or Firefox browsers. Microsoft Edge will not work!)
- 4. Attendance will be taken using "You-Attend".
- 5. To do the experiment of the week, go to the "Content" tab and select the experiment for the week which will be on the left side of the page.
- 6. Click and watch the YouTube videos that illustrate a) the actual experiment b) how to calculate the results.
- 7. After viewing the videos, you will perform calculations based on a set of representative data that is provided.
- 8. Submit the Data Sheet with the calculated results, the Pre-lab and Post-lab in the "Dropbox" of D2L to be graded.
- 9. The "Dropbox" can be accessed by going to the "Assessments" tab.
- 10. You have one week from the start of the experiment to submit your results. They must be submitted as a PDF file. If you do not have access to a scanner, you can download the "Adobe Scan" app which converts a picture of your results into a PDF file. The links for this app are:

Link to App store for IOS devices (apple) <u>https://apps.apple.com/us/app/adobe-scan-digital-pdf-scanner/id1199564834</u> Link to Google Play Store for android devices <u>https://play.google.com/store/apps/details?id=com.adobe.scan.android&hl=en_US</u>

B. Course Outline

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

WEEK	DATE	EXPERIMENTS				
1	1/11	TECH 380 – Safety & Check-In MISC 877 – Graphical Analysis Using Excel				
2	1/18	MLK Holiday – No Lab				
3	1/25	Exp. 616 – Introducing Chemical Equilibrium				
4	2/1	Exp. 8 – Chemical Kinetics				
5	2/8	Exp. 8 – Chemical Kinetics (cont.)				
6	2/15	Exp. 356 - Gravimetric Sulfate				
7	2/22	Exp. 356 - Gravimetric Sulfate (cont.)				
8	3/1	Exp. 499 – pH of Acids, Salt, and Buffer Solutions				
9	3/8	No Lab (Spring Break)				
10	3/15	Exp. 494 - pH Titration				
11	3/22	Exp. 364 -Group I Qualitative (Part II)				
	3/26	LAST DAY TO DROP				
12	3/29	Exp. 450 – Electrochemistry				
13	4/5	Exp. 439 – Synthesizing Aspirin				
14	4/12	Exp. 360 – Colorimetric Determination of Aspirin				
15	4/19	Make-up Lab				
16	4/26	End of Semester				

Important Semester Dates:

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

V. LAB REQUIREMENTS

1. Visorgogs or safety goggles, must meet ANSI Z87.1-1989 certification.

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.

VIII. 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.

IX. 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).

If you stop participating on-line and do not withdraw, you will receive a performance grade, usually an "F". Being late for class and leaving class early (without permission) are extremely disruptive to the class. If it becomes habitual, the student will be asked to withdraw from the course.

X. COURSE REQUIREMENTS AND GRADING POLICY

1. Final Grades will be determined according to the following system:

Total points possible: 100

- $\begin{array}{l} 90\text{-}100 = A \\ 80\text{-}89 &= B \\ 70\text{-}79 &= C \\ 60\text{-}69 &= D \\ 0\text{-}59 &= F \end{array}$
- 2. There are 11 graded experiments for the lab course. Each experiment counts 100 points toward the final average lab grade. If you will be absent during a lab, you can make up the lab by going to another CHEM 1112 lab session during the same week, or you can make up the lab during make-up week (see schedule) You must turn in your lab write ups (pre-lab, data sheet and post-lab) to the lab instructor during your make-up lab. The lab instructor will forward your lab write ups to me. Missing more than 2 labs will constitute a grade of F for the course.
- 3. Attendance will be taken for each lab session. No lab write ups (pre-lab, data sheet or post-lab) will be accepted for any experiment not attended, unless the lab was made up with another lab instructor, or during make-up week.

A. Grading of The Laboratory Experiment

- 1. The Pre-lab exercise (25 points) must be completed before the lab session. Student must turn in the pre-lab write up before commencing the experiment.
- 2. The Data Sheets and Observations (50 points) and the Post-lab exercises (25 points) will be due at the end of the period following the completion of the experiment.
- 3. The Data Sheets and Observations must be completely filled out in ink. When you make an error, cross it out with a single line. Do not use liquid paper or obliterate the error. For example: error

XI. 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.

XII. 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.

XIII. 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.

XIV. 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 <u>http://brazosport.edu/students/for-students/student-success-center/math-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.

Using Desire2Learn for Introductory Chemistry (CHEM 1305/1105-online) Updated July 29, 2021

What you need:

- 1. Computer with internet connection as well as Browsers such as <u>Microsoft Edge</u>, <u>Google</u> <u>Chrome</u>, <u>Firefox</u> or <u>Safari</u> and updated <u>Java</u> loaded.
- 2. **Student ID** (not Social Security Number) and PIN. Go to <u>BC student account</u> for instructions about obtaining student accounts.
- 3. Sign up for BCNET password reset at <u>BC password assistance</u>

Log-on to Web Course

- 1. Open your internet browser on your computer
- 2. Go to the Brazosport College online course home page
- https://online.brazosport.edu/index.asp (bookmark this page)



Check Your Computer Technical Support Chat First Time Login Help Distance Learning Website

FALL courses will be available for access on August 24th.

Brazosport College has been authorized to provide financial assistance to those students who have been negatively impacted by the COVID -19 pandemic. View Brazosport College's CARES Act COVID-19 Emergency Assistance website for more information on who is eligible and how to apply. If you are eligible to apply, log in with your Brazosport Username and password and click on the COVID-19 Emergency Assistance course to complete the CARES Act application (view Login Guide).

Brazosport College ha sido autorizado para proporcionar asistencia financiera a aquellos estudiantes que han sido afectados negativamente por la pandemia COVID-19. Consulte el sitio web de Asistencia de Emergencia COVID 19 de la Ley CARES de Brazosport College para obtener más información sobre quién es elegible y cómo solicitarlo. Si es elegible para aplicar, inicie sesión con su nombre de usuario y contraseña de Brazosport y haga clic en el curso de Asistencia de Emergencia COVID-19 para completar la solicitud de la Ley CARES (ver la Guía de inicio de sesión).

Classes are now offered online or through alternative formats until further notice. View the Coronavirus Guidance page for the most recent updates. To register for Summer and Fall classes, log into your MyBC.

If you are having technical issues, unable to log in or see your course: text chat with technical support, email helpdesk@brazosport.edu or call (979) 230-3266.

To login and access course(s): Enter your Brazosport Username and Password. If you forgot your password contact the helpdesk using the above contact information. If this is your first time here, view First Time Login Help.

It is highly suggested to view our Course Tools Tour video which shows how to use tools such as submitting a quiz, doing a discussion, turning in an assignment, and view grades. View video based on closed captioning preference: English Captioned Video / Spanish Captioned Video.

By logging into the Virtual Campus you agree to be bound by the terms of BC's Student Security Agreement. Furthermore, you agree to be bound by any subsequent revisions of this agreement.

Usemame *	
Password *	S S
Log In	

- 3. *Type* your **Username** and **password** in the boxes (see example below) **Username** is the same as students' BCNET ID and is as follows: The username for your student account consists of your first name initial, your whole last name and the last four digits of your student ID (example: jdoe1234). Your **Password** will be BC+your pin number (example: bc123456). You should have received a letter from the Registrar that provided you your Student ID number and your pin number. You may visit the Registrar Office to get this information in person.
- 4. You will now see the **My Courses** page that will display your name and show a link for the course. If you are taking more than one web course at Brazosport College you will see each course listed, *click* on the <u>blue title</u> of the course to enter.

Important notes about the My Web Courses entry page

Become familiar with quick links and icons once you are in the course:

CHEM1305-JCHU-Online			þ	A		JUDY CHU	ŝ	
Course Home Content Communication - Assessments - You-Attend Classlist	Glossary	Live Su	oport 🗸	Edit Co	urse 7/2	29/2020		
News 🗸			Updates	~				
There is no news to display. Create a news item.				There are no current updates for CHEM1305- JCHU-Online				
			Calendar	~				
	Course Home Content Communication - Assessments - You-Attend Classlist	Course Home Content Communication ~ Assessments ~ You-Attend Classlist Glossary News ~	Course Home Content Communication Assessments You-Attend Classlist Glossary Live Sup News There is no news to display. Create a news item.	Course Home Content Communication Assessments You-Attend Classlist Glossary Live Support Image: Content Communication News Image: Content Communication Image: Content Content Communication Image: Content Content Conten Content Content Conten Content Content Co	Course Home Content Communication Assessments You-Attend Classlist Glossary Live Support Edit Content Updates Updates There are no current JCHU-Online	Course Home Content Communication ~ Assessments ~ You-Attend Classlist Glossary Live Support ~ Edit Course 7/2 News ~ Updates ~ There is no news to display. Create a news item. Updates for JCHU-Online Updates for JCHU-Online	Course Home Content Communication ~ Assessments ~ You-Attend Classlist Glossary Live Support ~ Edit Course 7/29/2020 News ~ Updates ~ There is no news to display. Create a news item. Updates ~ There are no current updates for CHEM130.	

- Click the Log Out button when you have completed your work in **Desire2Learn** or if you step away from your work for more than 15 minutes. Logging out will close the program but keep the browser open. Thousands of students now use these servers for online courses. Students who close the window (X) but do not log-out are still on the server and therefore take up resources slowing the process for everyone else. **Be a courteous user and always "Log-out"**.
- The **Course Menu** is the blue navigation bar under the Brazosport College Virtual Campus logo. Most links for course material are located there.
- All email in **Desire2Learn** is for enrolled students only. You will not be able to send or receive messages from anyone who is not enrolled in this course. **Please communicate** with me through this email. If D2L is not accessible and you need to reach me you may send a message to my campus email address <u>mailto:judy.chu@brazosport.edu</u>, however, I will not respond as quickly as when messages are sent through D2L.
- If you have any questions during the semester, please contact me as quickly as possible.