

# Spring Term 2023 CHM 1020L INTRODUCING GENERAL CHEMISTRY LAB (4 Credits)

**Welcome** – I am very pleased that you have chosen to participate in Introducing General Chemistry Lab. Working together, we can create an engaging, meaningful learning experience. I want this to be a positive, valuable course. I look forward to working with you. Please let me know how I can help you.

**Catalog Description:** This introductory chemistry laboratory course is designed to complement CHM 1020. This course is for liberal studies and non-science majors. It is also suitable for you, if you have not taken high school chemistry and plan to take CHM 2045C.

## Prerequisite: CHM 1020. Corequisite: CHM 1020.

This course presents the basics of what happens in the physical universe with a focus on biochemistry. The course covers modern chemical theories used to develop an understanding of fundamentals in inorganic chemistry and its applications. Emphasis is on quantitative relationships using dimensional analysis to solve problems and includes selected topics from organic and biochemistry.

**Course Specific Outcomes:** Upon successful completion of this course, students will be able to:

A. Students will demonstrate the ability to communicate (read, write, speak, and listen) effectively. (Communication).

B. Students will demonstrate the ability to reflect, analyze, synthesize, and apply knowledge. (Critical thinking).

- 1. Students will work safely in the laboratory.
- 2. Students will use laboratory glassware and equipment safety and with proper technique.
- 3. Students will make measurement, prepare solutions, record, and analyze the observations.
- 4. Students will use titration to determine the concentration of the solutions.

5. Students will use a spreadsheet to generate a standard curve and apply it to analyzing unknow samples.

6. Students will quantitatively determine the formula of an inorganic compound.

C. Students will demonstrate the ability to find, evaluate, organize, and use information. (Information).

D. Students demonstrate knowledge and application of mathematical and scientific principles and methods. (Mathematical principles).

Prerequisites: Prerequisite: CHM 1020. Corequisite: CHM 1020.

## **Required Course Materials:**

The Lab Skills eBook is found in Cengage Unlimited. Students may purchase access to Cengage Unlimited through the SFSC Bookstore using the ISBN 9780357700006. If students already have access to Cengage Unlimited through another course, there is no need to purchase it again.

Labster Virtual Lab simulations can be purchased in one of two ways:

- 1. Using a voucher through the SFSC Bookstore. The ISBN is 9783662579992.
- Using a credit card through the website.
  There is a separate sheet entitled Student Help Sheet located under Content.

**Other requirements:** Students will need access to a **computer** with high speed internet, audio and video capability. Use of Microsoft Office Suite 2010 is encouraged. Students should also have a USB key/flash drive. Students need knowledge of file management, email, attachments, word processing, and internet searches.

#### Instructional Methods:

The methods used to teach this course will include virtual and verbal discussion, computer assisted instruction, virtual experiments, and hybrid office hours.

#### **Course Resources:**

You are required to obtain a Panther Central password and email address. Check the course main page and your email daily for announcements and/or communication from your instructor. Course components including the syllabus are available online.

#### **Course Requirements: Assessments (Exams/Quizzes/Assignments):**

Evaluation of the student will be based on successful completion of the following products and activities.

- **Complete assigned text readings and view Panther Central content.** It is recommended that you check into the course site several times during the week. Participation includes checking and responding to email, posting, and responding to messages, asking questions, and submitting assignments.
- Complete experiments on the Labster Experiment Simulations site. Plan ahead for extended quiet work time because these experiments will take between one and two hours each. You can exit and resume them if you have an emergency interruption. Questions are asked during the simulation to check your understanding. NOTE: Labster does not work on mobile devices. This is why you need access to a computer.
- **Complete one introductory discussion board response.** Responses should be posted weekly to the discussion board topic. The recommended length is approximately 200 words. For full discussion board points, students must respond to every question in complete sentences with no errors and reply to a classmate. Please see the discussion board score sheet under content for complete details.
- **Complete Lab Assignments.** Assignments can be accessed following the Cengage Owl link in Brightspace.
- **Complete quizzes.** Quizzes may be accessed through the Cengage Owl link in Brightspace. Set aside a block of quiet time to work on your quiz. Quizzes are timed. Once the quiz is opened, you must finish it.

Read and study videos and content materials related to the quiz prior to taking the quiz. You will not have time to look up every answer.

## Grading:

# Grading Evaluation/Criteria

Grading percentages for different assignments or exams may vary somewhat for each faculty teaching the course.

Assignments	30%
Labster Simulations	40%
Quizzes & Final Exam	30%
Total	100%

### **Grading Scale:**

89.5-100%	А
79.5-89.4%	В
69.5-79.4%	С
59.5-69.4%	D
0-59.4%	F