

COURSE ID:	CHEM 213
DEPARTMENT:	Chemistry
SUBMITTED BY:	Sheri Lillard
DATE SUBMITTED:	June 5, 2020

For additional resources on completing this form, please visit the DE Website: www.valleycollege.edu/onlinefacultyresources

- 1. Please select the distance education method that describe how the course content will be delivered in an emergency situation. Check ALL methods that will be used for offering this course, even if previously approved.
  - $\Box$  FO Fully Online
  - $\boxtimes$  PO Partially Online
  - □ OPA Online with In-Person Proctored Assessments
  - □ FOMA Fully Online with Mutual Agreement
- 2. In what way will this course, being offered in distance education format for emergency purposes only, meet the needs of the campus? (Ex: Student Access, Campus Strategic Plan, Campus Mission Statement, Online Education Initiative (OEI), Student Equity, Student Needs). Please be specific.

Student Access Student Equity This course is a prerequisite for both allied health tracks and traditional STEM programs. In addition, it serves to meet a general education requirement.

#### 3. Will this course require proctored exams?

□ No ⊠ Yes - If yes, how?

Some sections of the course may have proctored exams (it is up to the specific instructor). If so, methods may include an online proctoring software such as Proctorio.

### 4. How will the design of this course address student accessibility? Are you including any of the following?

- $\boxtimes$  Captioned Videos
- ⊠ Transcripts for Audio Files
- $\boxtimes$  Alternative Text for Graphics
- ⊠ Formatted Headings
- $\Box$  Other If other, please explain.



5. Provide a specific example of how the instructor will provide synchronous office hours for distance education students? (Ex: Online Conference Tool, Cranium Classroom, Zoom, Pisces, Skype, etc.)

A weekly schedule of synchronous office hours will be listed on the course syllabus, and will be held online using a tool such as Zoom. Students will be given the link to recurring office hours through the Learning Management System (currently Canvas). A feature such as breakout rooms in Zoom may be used to split students into different sessions so the instructor is able facilitate problem-solving on different topics. A whiteboard feature may also be used to be able to demonstrate working out problems in real time.

6. Provide a specific example of how this course's design ensures regular and effective instructor-student contact? (Ex: Threaded discussion forums, weekly announcements, instructor prepared materials, posting video and audio files, timely feedback on exams and projects, synchronous online office hours, synchronous online meetings, synchronous online lectures, etc.)

Weekly announcements. Instructor prepared materials made available regularly (e.g., weekly or for each course module) Posting video and audio files in a timely manner. Weekly synchronous online office hours. Regular synchronous online lectures and/or threaded discussion forums. Timely feedback on exams and lab reports.

https://www.valleycollege.edu/online-classes/faculty-resources/reg-effective-contact.php

 Provide a specific example of how this course will ensure regular and effective student-student contact? (Ex: Threaded discussion forums, assigned group projects, threaded discussions, Notebowl, peer-to-peer feedback, synchronous online meetings, etc.)

Students may participate in threaded discussions on a regular schedule (e.g., weekly). These discussion boards may involve problem-solving from lecture material or lab discussions/analysis based on experimental data and results. Instructor may establish and moderate virtual small groups where students work together to solve problems, either synchronously via Zoom or asynchronously via discussion boards.

8. Describe what students in this online version of the course will do in a typical week on this class. Include the process starting after initial log in.

Students will log in to Canvas and access the resources for the week's content. These resources may include PowerPoint slides, YouTube videos, written tutorials, etc. They will then work on problem-solving, either via textbook homework problems, online homework software, and/or problem sets created by the instructor.

Weekly synchronous activity may involve lectures, problem-solving, or question & answer sessions via Zoom, in order to assist students with strategies and practice solving problems. Students may be separated into breakout rooms where they work on problems together to be presented to the rest of the class.

Additional weekly activity may include discussion boards, where students discuss among themselves prompts or questions posed by the instructor regarding different types of problems and concepts in Chemistry. For example,



perhaps they explain their thought process for solving a particular problem, discuss lab-related trouble-shooting or experimental considerations, or develop and explain homework problems of their own.

Periodically, quizzes and/or exams will be given, although not necessarily on a weekly basis. These assessments may be administered directly through Canvas, or possibly using other online resources such as Kahoot.

9. Provide a sample statement that could be included in the syllabus for this course that communicates to students the frequency and timeliness of instructor-initiated contact and student feedback.

Weekly announcements will be posted on Canvas, and will contain information involving the content for the upcoming week, reminders about assignments, quizzes, and/or exams, due dates for discussion boards, dates/times for synchronous activity such as Zoom meetings and office hours, and links to relevant resources (e.g., PowerPoint slides, written problem sets, etc.).

Student inquiries (e.g., email) will be addressed within 24 hours Mon through Fri. Assignments will be scored and posted in a timely manner (typically within one week of submission).

### 10. Provide a specific example of how regular and effective student-student interaction may occur in this online course.

Review the course materials covering the cumulative reactions to date. Work with your virtual small group to determine a reaction pathway for your group's assigned synthesis problems. Post your group's work on this week's discussion board. Evaluate the synthesis problems presented by other groups, and respond by proposing an alternative pathway to one of their solutions.

# 11. Provide a specific example of how regular and effective instructor-student interaction may occur in this online course.

Access the course materials covering the procedure for interpreting nuclear magnetic resonance (NMR) spectra. For a spectrum posted by your instructor in this week's threaded discussion, identify the number of equivalent hydrogens for each signal, determine the type of H, and predict the molecule. Write a post that states the predicted molecule's structure and details your analysis of the interpretation of the spectrum. Respond to questions or comments posed by your instructor.

**12.** Does this course include lab hours?  $\Box$  No  $\boxtimes$  Yes – If yes, how are you going to accommodate the typical face to face activities in an online environment?

The lab hours will constitute the face-to face component of this partially online course; face to face lab skills are required. Some lab experiences may be offered in an online/virtual format. The specific modes depend on the experiment, but may include simulations or virtual lab experiences using software such as PhET simulations or Labster, where students collect data and/or perform observations in a virtual setting. YouTube videos may be used for students to view experiments being conducted and record observations or data needed to complete calculations or a lab report.



### 13. How will you accommodate the SLO and Course Objectives in an online environment?

The course objectives and lecture-based SLOs will be accommodated similarly as in the face to face environment (via quiz or exam questions). Lab-related SLOs will be assessed based on face-to-face lab experiments.

### 14. Are modifications needed to SLOs or Course Objectives in order to teach this course in the online modality? ⊠ No □ Yes – If yes, please explain the changes needed.

(It is advised that if you are changing course content or objectives that you speak with the Curriculum Co-Chair or Articulation Officer for guidance moving forward.)

## To be completed by a member of the Curriculum Committee Review Team:

CURRICULUM CHAIR REVIEWED:	Mary Copeland	
DE REVIEW:		
CURRICULUM COMMITTEE DIVISION REPRESENTATIVE REVIEWED:		