

A - New Course Proposal V. 7.2022 : Entry # 3410**DEAN Decision**

Approved

Date

02/03/2025

Is this course intracollegiate or intercollegiate?

Intercollegiate

DEAN Comments

This course will be for nursing students, and thus, it should be evaluated by Dr. Ingram, Founding Dean of the School of Nursing. Dr. Ingram approved this proposal on 02/24/2025.

ACADEMIC PROGRAM Decision

Approved

SCHOOL EPC Decision

Approved

Date

04/08/2025

Begin Form**Today's Date**

01/10/2025

Your Name:

Todd Knippenberg

Your Email:mknippen@highpoint.edu**Are you a Department Chair?**

Yes

By checking below, I certify that my department chair has seen and approved the new course that I am proposing.

Yes

Please select the appropriate school overseeing this proposal:

Natural Sciences

When should this proposal take effect?

A - New Course Proposal V. 7.2022 : Entry # 3410

Spring 2026

Information for the Registrar**Choose the department designator from the list below.**

CHM

Proposed Course Number?

1200

Is this course cross listed?

No

Does this course replace a current course?

No

What is the title of the new course?

General Chemistry for the Health Sciences

Write the catalog description of your proposed course:

A one-semester course covering the basics of general and organic chemistry at an introductory level. Topics covered will include unit conversions, atomic structure, bonding, stoichiometry, acids and bases, solutions, organic molecules, and biomolecules with an emphasis on applications in the health sciences.

How many credit hours will this course be?

3

How will the course be graded?

Letter grade

Please select the course repeat option for this course:

Repeatable for credit once

What is the offering cycle for this course?

Every semester

Does your course have any prerequisites?

No

Gen Ed and Academic Programs**Is this course part of Gen Ed?**

- No

A - New Course Proposal V. 7.2022 : Entry # 3410**Does this course count towards a major or a minor?**

Yes

Please list the Major / Minor and if it is Required or Elective

Nursing - Major

Is this course part of an academic program?

- This course does not fulfill academic program requirements

Does this course include any community engagement?

No

Does this course participate in the GoGlobal Program?

No

Information for Curriculum Review**Rationale and evidence for new course's consistency with departmental mission:**

The proposal for CHM 1200 comes after three years of data were taken from CHM 1010, which is currently required in the pre-nursing track for the BSN degree. CHM 1010 is designed as the first semester of a two-semester sequence for general chemistry. Specifically, the two-semester sequence (CHM 1010 & CHM 1020) is what is commonly expected for MD, PA, Dental, etc professional schools as well as students majoring in natural science majors. The BSN degree currently requires only a single semester of general chemistry (CHM 1010). Due to the nature of CHM 1010 being part of a two-semester sequence, there is some material in CHM 1010 that is not needed for a career in nursing, and there is some information covered in CHM 1020 that would be applicable for nursing students. Additionally, the depth of material covered and mathematical rigor that is seen in CHM 1010 is in excess of what a nursing student needs. Nursing majors in CHM 1010 have a higher DFW rate compared to other students in the same course. After a discussion between Dr. Erb, Dr. Bauer, Dr. Ingram, and Dr. Augustine, it was decided that the Department of Chemistry would develop a new course that includes more applicable material for nursing students, as well as introduce some organic chemistry and biochemistry topics that are not covered at all in CHM 1010 / 1020 but would be helpful for nursing student to have exposure to.

List all student learning outcomes for this course.

Correctly measure and apply measurements correctly in mathematical problems.
Use conversion factors to convert between units.
Differentiate between the different states of matter.
Use specific heat to perform heating or cooling calculations.
Understand the information contained in each block on the periodic table.
Calculate the atomic mass, isotopic mass, and mass number of an element.
Recognize trends in periodic properties.
Learn different types of radiation and medical applications of radioactive chemicals.
Learn and name common polyatomic ions.
Draw Lewis structures for simple compounds.
Perform calculations using the mole, molar mass, and balanced chemical reactions to predict the amount of product in a chemical reaction.
Calculate a percent yield or theoretical yield of a reaction.
Perform concentration calculations for solutions.

A - New Course Proposal V. 7.2022 : Entry # 3410

Perform dilution calculations for solutions.
Recognize acids and bases and perform pH calculations.
Learn how buffers work.
Understand basic organic chemistry drawing structures.
Learn about proteins, amino acids, and enzymes.

List any units or content areas that will be required for all sections of this course.

Chapters covering basic mathematical operations, converting between units of measurement, energy, the periodic table and its layout, different types of bonds, balancing chemical equations and stoichiometry calculations, solution chemistry, and buffers are required.

List any assignments, tests, or other assessments that will be required for all sections of this course.

There will be 4 in-class exams administered approximately the same distance from one another.
There will be a cumulative final exam that covers all content from the semester.
Online homework will be administered every day that there is a lecture so that students have the opportunity to practice right away.
Students will also participate in interactive polling during the lecture to help the instructor gauge comprehension.

List any readings or other materials that will be required for all sections of this course.

Access to the online homework platform - Mastering Chemistry is required. Access to this also provides students with an e-text of the textbook. Students will also need some type of calculator, as well as access to PollEverywhere. Students can interact with PollEverywhere via their phone or laptop using their HPU email address.

List any course policies that will be required for all sections of this course.

Students must be enrolled in the corresponding lab section (CHM 1201 - General Chemistry for the Health Sciences Lab) at the same time as they are enrolled in this course.

If you would like to specify how requirements for contact hours must be met for all sections of this course, please indicate below. (e.g., if any experiential learning activities will replace seat time)

The 3 credit hours for this course will be met fully by in-person lectures.

Sample Syllabus

- [CHM-1200-Syllabus-Proposal.pdf](#)