

# SYLLABUS

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**Code:** CHEM 294

**Title:** Independent Chemistry Research

**Institute:** STEM

**Department:** Chemistry

**Course Description:** Students engage in independent research under the direction of a faculty mentor. This course is an opportunity for approved students to conduct scientific experiments in a research laboratory. Students will spend 180-270 hours in a research laboratory supervised by a faculty member. Students will be paired with a research mentor and will engage in research activities to support the mentor's ongoing research projects. Special permission from chemistry department chair is required. Students are required to take CHEM 295 for a minimum of 1 credit as a corequisite to this course to support an introduction to literature research and a final presentation of the research project.

**Prerequisites:** A grade of "C" or higher in CHEM 101 and permission of Chemistry Department Chair.

**Corequisites:** CHEM 295

**Prerequisites or Corequisites:**

**Credits:** 4-6

**Lecture Hours:**

**Lab/Studio Hours:** 12-18hrs/week

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**REQUIRED TEXTBOOK/MATERIALS:**

**ADDITIONAL TIME REQUIREMENTS:**

Students are responsible for travel to and from research laboratory.

**COURSE LEARNING OUTCOMES:**

Upon completion of this course, students will be able to:

- Perform laboratory experiments in a mentored setting
- Gather and analyze data
- Analyze and research published primary articles
- Troubleshoot and design experimental procedures
- Collaborate with research mentors and associates
- Utilize laboratory instrumentation to gather data

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## **GRADING STANDARD:**

Upon completion of the course, grades will be assigned as follows:

<b>A</b>	<b>=</b>	<b>92 – 100%</b>
<b>A-</b>	<b>=</b>	<b>89 - 91%</b>
<b>B+</b>	<b>=</b>	<b>86 - 88%</b>
<b>B</b>	<b>=</b>	<b>82 - 85%</b>
<b>B-</b>	<b>=</b>	<b>79 - 81%</b>
<b>C+</b>	<b>=</b>	<b>76 - 78%</b>
<b>C</b>	<b>=</b>	<b>70 - 75%</b>
<b>D</b>	<b>=</b>	<b>65 - 69%</b>
<b>F</b>	<b>=</b>	<b>&lt;65%</b>

Assessment results will be reported as the grade assigned by the faculty calculated to the first decimal place. These grades will be weighed according to course grading policy. In calculating the course grade, 0.5 will round up to the next numerical grade and 0.4 will round down to the next lower numerical grade.

The grading standard will be based on student attendance and performance in the research laboratory. Details will be discussed between each individual research advisor and student.

## **COURSE CONTENT:**

Students will perform research duties as detailed by research mentor at partner institution. Research topics will vary.

## **DEPARTMENT POLICIES:**

Students must arrive on time for established schedules and observe all safety procedures at the partner institution.

## **COLLEGE POLICIES:**

For information regarding:

- ◆ Brookdale's Academic Integrity Code
- ◆ Student Conduct Code
- ◆ Student Grade Appeal Process

Please refer to the [BCC STUDENT HANDBOOK AND BCC CATALOG](#).

## **NOTIFICATION FOR STUDENTS WITH DISABILITIES:**

Brookdale Community College offers reasonable accommodations and/or services to persons with disabilities. Students with disabilities who wish to self-identify must contact the Disabilities Services Office at 732-224-2730 (voice) or 732-842-4211 (TTY) to provide appropriate documentation of the disability, and request specific accommodations or services. If a student qualifies, reasonable accommodations and/or services, which are appropriate for the college level and are recommended in the documentation, can be approved.

## **ADDITIONAL SUPPORT/LABS:**

Library resources are available for literature research.

*The syllabus is intended to give student guidance in what may be covered during the semester and will be followed as closely as possible. However, the faculty member reserves the right to modify, supplement, and make changes as the need arises.*