Chemistry 482
Introductory Research II

*This is a Departmental Course Syllabus covering all sections in the Fall 2018 or Spring Term 2019*

Catalog Description: A continuation of Chem 481 Open to students who have done satisfactory work in Chem 481. A seminar, written report, poster or other presentation separate from that required for Chem 481 is required.

Pre-requisites: There are no formal pre-requisite courses required for enrollment. However, admission to the course requires a faculty member's agreement and the approval of the department chair.

Course Format: This course is a two-credit independent research course. Students are expected to work a minimum of 6 hours per week in consultation with a faculty mentor.

Learning Outcomes:
- To conduct appropriate experiments after consulting scientific literature
- To evaluate experimental results and propose a plan for moving the project forward
- To explain the results and interpretations of experiments in writing and in an oral presentation

Attendance Policy: Students are expected to arrange and then abide by a work schedule with the faculty member. The expected hours of work will be provided in the individual addendum below and will be signed by the student. Attendance is verified through weekly updates sent to ChemResearch@cofc.edu.

Office Hours: Office hours will vary depending on the mentor’s schedule in a given semester. Students should establish a regular meeting time to touch base with the faculty member and indicate this in the addendum below.

Meeting Place: Typically the student will be working independently in a faculty member’s lab. The location of that lab will be identified in the addendum below.

Course Materials: Students must supply PPE (lab coat, gloves, safety glasses or goggles) and a lab notebook. The notebook becomes the property of the lab at the conclusion of the work and will not be returned to the student.

Course Expectations:
1) Students who work independently in a lab must complete the Department of Chemistry and Biochemistry Research Safety Training once a year. During the academic year, training is conducted by the PI of the lab. In the summer, students will attend a day-long safety orientation. Each student will post their training record in their lab’s orange 3-ring binder.
2) Students must commit to a work schedule arranged with the faculty member that corresponds to a minimum of 6 hours per week.
3) Student must provide the faculty mentor a written report of their work at the conclusion of the term, in the format of an ACS journal article (or other format at the discretion of the PI). A copy of the final paper must be submitted to the faculty mentor and ChemResearch@cofc.edu by the last day of class.
4) The student must either give an oral presentation of their work or a poster presentation of their work at the discretion of their advisor, preferably at a meeting. The research mentor will consider what experiences the student has completed already in 481 and in summer research experiences in determining whether a poster or oral is more appropriate for Chem 482. The aim is for a student to have completed an oral presentation, a poster presentation, and a written presentation over the course of their 481/482/397 enrollments. If no appropriate venue is available for an oral presentation, the student may present to the
faculty mentor and their research group or to a student/faculty audience arranged by the department. In all cases, the powerpoint file of the poster or the oral will need to be submitted to ChemResearch@cofc.edu by the last day of class.

5) Students are expected to participate in the proper care and maintenance of lab facilities and to abide by safety regulations of the department, including monthly lab safety assessments, maintenance of chemical inventory (updated annually in the summer), and adhering to all department safety policies, especially with regards to **wearing PPE at all times while in the lab. Faculty in the department will report students they observe who are not dressed in the proper PPE. Three observations will result in a failing grade and dismissal from lab.**

6) Lab notebooks are the property of the faculty mentor and must remain in the laboratory.

7) Students are expected to understand and adhere to the “work alone” policy set forth by the faculty mentor. This acknowledgement should be in the group’s orange binder.

8) Students are responsible for carrying out the lab’s monthly safety inspections in January, February, March and April for Spring term enrollment and the September, October, November inspections in the Fall term. If multiple students in a lab are enrolled in a given semester, the work may be divided among the enrolled students.

9) Students will email their research advisor and [ChemResearch@cofc.edu](mailto:ChemResearch@cofc.edu) on Friday of each week with a brief summary of their lab work that week.

**Grading Policy:**

- Attendance in lab (6 hrs/week) and weekly lab updates 20%
- Satisfactory completion of lab assignments 40%
- Completion of lab paperwork and inspections and Adherence to safety rules 10%
- Final paper 15%
- Oral Presentation 15%

**Grading Scale:**

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<thead>
<tr>
<th>Score</th>
<th>Grade</th>
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<tbody>
<tr>
<td>94-100</td>
<td>A</td>
</tr>
<tr>
<td>90-93</td>
<td>A-</td>
</tr>
<tr>
<td>87-89</td>
<td>B+</td>
</tr>
<tr>
<td>83-86</td>
<td>B</td>
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<tr>
<td>80-82</td>
<td>B-</td>
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<td>77-79</td>
<td>C+</td>
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<td>74-76</td>
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<td>70-73</td>
<td>C-</td>
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<td>65-69</td>
<td>D</td>
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<tr>
<td>Below 65</td>
<td>F</td>
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**Accommodations for Disability:** Any student eligible for and needing accommodations because of a disability is requested to speak with the professor during the first two weeks of class or as soon as the student has been approved for services so that reasonable accommodations can be arranged.

**Academic Integrity:** Students are expected to abide by the College of Charleston’s Honor Code and are referred to the Student Handbook to review this policy: [http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php](http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php).

Students are also expected to abide by the Department of Chemistry and Biochemistry’s Scientific Integrity Policy: [http://chemistry.cofc.edu/documents/POLICY%20ON%20SCIENTIFIC%20INTEGRITY%2008-17-2017.pdf](http://chemistry.cofc.edu/documents/POLICY%20ON%20SCIENTIFIC%20INTEGRITY%2008-17-2017.pdf)
Addendum: To be filled out by the student and faculty member, signed by the student, and submitted to the department office.

________________________________________________________
Student Name:

________________________________________________________
Faculty Name:

________________________________________________________
Faculty Email:

________________________________________________________
Faculty Meeting Time:

________________________________________________________
Faculty Office #/Lab#:

________________________________________________________
Title of Project:

________________________________________________________
Expected Final Project:

________________________________________________________
Expected Hours of Work:

________________________________________________________
Student Email:

________________________________________________________
Student Cell phone Number:

________________________________________________________
Emergency Contact Name and Number:

________________________________________________________
Student Signature:
I understand the expectations and responsibilities of taking an independent research course in the Department of Chemistry and Biochemistry

________________________________________________________  ____________________
Signature                           Date