

## **RBIO 466/RCHE 466: Research Biology 466/ Research Chemistry 466**

*Last update: August 12, 2010*

### ***Course description – RBIO/RCHE 466 – Undergraduate Research:***

This course offers an independent, but directed, collaborative course of study involving a specific research agenda in the discipline under departmental faculty supervision. Research projects typically require literature review, empirical analysis, a written report, and a poster or oral presentation of the completed research project.

### ***How to enroll:***

Only qualified Biology or Chemistry majors with a science GPA or 2.33 or higher may enroll. The science GPA includes all majors-level science courses in biology, chemistry, environmental science and physics. Students may take RBIO/RCHE 466 in place of the BIO/CHE 488 (Internship) requirement, or they may take this course as an elective/free elective. Enrolling in RBIO/RCHE 466 is not open to all students. A student is either invited to join a research group by a faculty mentor, or a student obtains permission from a faculty mentor in advance of registering for the course. Registration requires the completion of a RBIO/RCHE 466 form (see page 3) which requires specification of project objectives, time period for completion of the project, and date of the final presentation. This form must be signed by the student, the faculty mentor, the department chair, and the Dean for Academic Affairs. Once submitted, the student may register for the course in the appropriate section assigned to the faculty mentor. The RBIO/RCHE 466 form from the Registrar's Office must be completed for all semesters in which the student is earning credit. Because academic integrity is a key component of ethical standards and expectations for conducting scientific research, any student with an academic honesty violation on file in the Academic Affairs Office will not be permitted to enroll in RBIO/RCHE 466 at any time while a student at Cabrini College.

### ***Academic credit(s):***

The number of credits correlates with the number of hours established between the student and the collaborating faculty member. For each credit, a minimum of 45 hours of research is required. Therefore, if taking this course for 3 credits, 135 hours of work is expected; if taking this course for 4 credits, 180 hours of work is expected, etc.. Students will be required to keep a log of hours spent on their projects which will be shared with their faculty mentor on a weekly basis. Research will take the form of laboratory and computing time, and also include time required to prepare written work (including completion of laboratory notebook) and oral presentations. Students may enroll for 1-12 credits in any given semester as determined by

faculty mentor. Students will be expected to keep a detailed laboratory notebook recording all work. This notebook will be the property of the laboratory in which they work and remain in the laboratory after completion of the course.

***If taking this course in place of the mandatory internship (BIO/CHE 488) requirement:***

Biology majors must complete a minimum of 3 credits, and Chemistry majors must complete a minimum of 4 credits. In addition, all students will complete a major written research piece (e.g. a substantive research paper or a scientific paper for a peer-reviewed publication), and present their work orally (e.g. before a faculty panel or an oral presentation at a conference). Abstracts will not take the place of a major written research piece, and poster presentations will not satisfy the oral presentation requirement.

***If taking this course as an elective:***

In addition to keeping a well organized laboratory notebook, students will also present their work orally to their faculty mentor. The oral presentation can be delivered at a formal laboratory meeting scheduled by the faculty mentor, or at a conference (poster not included).

Biology majors may take RBIO 466 as a biology elective to satisfy one of the electives for the Biological Sciences (must have completed a minimum of 3 credits), Pre-Medicine or Secondary Education Certification in Biology concentrations. Credits may be taken in one semester or spread over two to three semesters. Students enrolled in the Molecular Biology & Biotechnology concentration may not use this course as an elective for the biology major, but can use this course in place of the internship.

Chemistry majors may not use RCHE 466 as a chemistry elective. Students may use this course in place of CHE 488 (minimum of 4 credits), or as a free elective.

***If taking this course over the summer:***

Students must enroll for a minimum of 1 credit when taking this course over the summer. If more than 45 hours are completed, those hours can be rolled over to the fall or spring semesters for RBIO/RCHE 466 credit. Assessment of summer work is determined based on the criteria stated above for internship or elective credit.

**UNDERGRADUATE RESEARCH PROPOSAL**  
**CABRINI COLLEGE**  
 Radnor, PA

\_\_\_\_\_ Full Time

\_\_\_\_\_ Part Time

Name: \_\_\_\_\_ Banner ID#: \_\_\_\_\_

Subject Code: R- \_\_\_\_\_ Number 466 Course Title: \_\_\_\_\_

Department: \_\_\_\_\_

Faculty/Supervisor: \_\_\_\_\_

Beginning Date: \_\_\_\_\_ Ending Date: \_\_\_\_\_

**Brief description of specific research agenda** (include titles of required literature review when appropriate):

**Location of research presentation:** \_\_\_\_\_

**Method and Criteria for evaluation:**

As the **student**, I agree to pay any additional fees this research may generate. (Students registering for RBIO or RCHE pay a lab fee of \$80.00.) I agree to meet the requirements of this Undergraduate Research and to complete these requirements by: Date by which Student is to complete and present research \_\_\_\_\_. I also agree that the Department Chair may contact Academic Affairs to confirm that I have no academic honesty violations on record.

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

As the **instructor/supervisor**, I agree to assist the above named student in the completion of the Undergraduate Research as outlined above. I agree to submit a grade to the Office of the Registrar by: (Due date of grade to be submitted) \_\_\_\_\_

Instructor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**APPROVAL:**

\_\_\_\_\_  
**Department Chair**

\_\_\_\_\_  
**Academic Dean**

CC: Registrar, Student, Faculty, Department Chair, Academic Affairs