General Description: Biochemistry 492 is an excellent opportunity for Biochemistry majors to work in a research laboratory during their senior year. The experience is valuable, especially for those students considering professional or post-graduate education. Admissions committees of both graduate and professional schools look with favor on students with research experience.

Participation in this program is contingent upon prior completion of the Biochemistry core courses (MCB 354, BIOC/MCB 406, and BIOC 455) before enrollment in BIOC 492. Each February, information is mailed to all Junior Biochemistry majors. Majors interested in the program are asked to submit a BIOC 492 Information Form and then schedule interviews with 2-3 Biochemistry faculty, with whom they might like to work, to discuss possible projects. Prior approval from the Department is required for students who wish to conduct their research in a non-Biochemistry faculty laboratory (note: BIOC 492 projects must be of an essentially biochemical nature). Students in this situation must also submit a 1-2 paragraph abstract, describing what their 492 research project will entail, a letter from the research advisor describing the research project in detail, and identify a Biochemistry faculty member who is knowledgeable about this research area and agrees to act as a sponsor/2nd supervisor for this project. If needed, students in this situation should see Louise Cox, 420A RAL, for help in this process.

Students, normally 2nd semester Juniors, who are accepted into a laboratory will be able to register for 4-6 hours of BIOC 492 for the following Summer (optional), Fall, and Spring semesters. Biochemistry faculty strongly recommend that all students who plan to perform senior thesis research enroll in BIOC 460 (Writing in Biochemistry) in either their Junior or Senior year. Majors must complete at least 10 hours of BIOC 492 over a minimum of two semesters and present a thesis for deposit in the College of Liberal Arts and Sciences in order to receive a grade in this course and to be considered for graduation with distinction. The grade in BIOC 492 will be based upon performance in the laboratory and quality of the thesis, which must be submitted to the thesis advisor in late March for May graduates. The grade at the end of the summer/fall semester(s) will be deferred (“DFR”), although the thesis advisor will evaluate the student and provide feedback at that time.

Procedures for students who wish to participate in the Biochemistry Senior Thesis Program:

1. Eligibility: students are required to have completed MCB 354, BIOC/MCB 406, and BIOC 455 prior to enrollment in BIOC 492. A 3.0 overall GPA is strongly recommended. Students who do not have a “B” average may also contact Biochemistry faculty and discuss the possibility of doing a BIOC 492 project.

2. Application: students must submit a completed Student Information Form (available in room 420A RAL), current CV/Resume, and unofficial transcript to room 420A RAL. NOTE: Normally students may not simultaneously hold a Teaching Assistantship while enrolled in BIOC 492 due to time constraints.

3. Research: identify 2-3 Biochemistry Department faculty members with whom you might like to work. Use a) the Biochemistry website listing the Faculty research programs: www.life.uiuc.edu/biochem/faculty b) your personal knowledge and/or contacts to determine compatibility of interests, and c) the MCB website listing MCB Faculty research programs: www.life.uiuc.edu/mcb/research/

4. Appointments: contact 2-3 individual faculty members to schedule an interview and discuss a possible project. Students must provide a copy of their completed Student Information Form, transcript, and CV to each faculty member they contact, and to the Biochemistry Office of Student Affairs (420A RAL). Attach a copy of your current, unofficial transcript and CV to the Student Information form.

5. Lab: students and faculty finalize their negotiations. NOTE: The student is responsible for identifying and negotiating a position with a faculty member. Students must inform Louise Cox in room 420A RAL.

6. Junior Award: William T. Jackson Scholar Award in Biochemistry. This monetary award provides, in part, the summer stipend for a junior Biochemistry major who will begin working on a Biochemistry 492 research project in a Biochemistry faculty laboratory in the summer before their senior year. Nominations require a recommendation letter from the research advisor describing the 492 project and the student’s
qualifications, a BIOC 492 Student Information Form, the student’s resume & statement, and copy of unofficial transcript. Application deadline is April 9 for 2007.

7. Register: in consultation with your research advisor, determine how you want to distribute the hours over 2-3 semesters. A minimum of 10 hours of BIOC 492 must count toward the completion of the degree, and up to 6 hours may be taken in any one semester. Register in April for BIOC 492 by using your faculty advisor's individual CRN. Contact the Biochemistry Office of Student Affairs to obtain this CRN.

8. Schedule: in consultation with your thesis advisor, establish a schedule for your work. It is important that you and your thesis advisor agree to a time table (and later, agree to any changes that may be required).

9. Grade: each student must submit a thesis (a formal paper following the attached format) approved by the faculty supervisor, the Biochemistry Department Head, and the LAS College Honors Dean, in order to receive a grade and hours for the course. A deferred grade (“DFR”) must be given for all semester grades in Biochemistry 492 until the thesis is presented. That is, when a student enrolls for BIOC 492 in both the fall and spring semesters, the grade given at the end of the fall semester will be “DFR”, not a letter grade. This “DFR” grade will be changed to a letter grade after the thesis has been deposited.

10. Honors: majors who satisfactorily complete Biochemistry 492 may be eligible for departmental honors. Registration in BIOC 492 is required; substitution of MCB 492 or Chem 499 is not permitted. Students must submit a BIOC 492 thesis and be nominated by their Biochemistry 492 thesis advisor.

   a. **Departmental Distinction**: In order to qualify for graduation with distinction, students must 1) be registered for at least 10 hours of BIOC 492, 2) complete a senior thesis, and 3) be recommended for distinction by their thesis advisor. To be eligible, a student must have an overall grade-point average of at least 3.25 and must register in the senior thesis course Biochemistry 492. Recommendations for distinction are based on the quality of the thesis work and academic GPA. *It is important that the thesis advisor comment on whether the results presented in the thesis are the sole work of the 492 student or are a result of collaborative efforts. This should also be made clear in the thesis.*

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   The decision of whether or not the thesis warrants Departmental Distinction will be made by the thesis advisor and the Departmental Awards Committee. In general, about half of the theses in any year have warranted some form of Departmental Distinction. **Nomination deadline is April 9 for May 2007.**

   b. **Awards**: two Senior Thesis Awards are available to BIOC 492 senior thesis students who graduate in May. The winners’ achievements are recognized at the MCB Awards Ceremony on May 3, 2007. Students must be nominated by their Biochemistry 492 thesis advisor. **The nomination deadline is April 9 for May 2007.**

   i. **William T. and Lynn Jackson Senior Thesis Award**: This award was established in 2004 and is given at the end of each Spring semester to the senior student who presents the best Biochemistry senior thesis. The award is sponsored by Dr. William Jackson, a Chemistry graduate of the University of Illinois. The award is a $500 cash prize.

   ii. **Thomas O. Sidebottom Award**: This award was established in 1986 and is given at the end of each Spring semester to the senior student who presents an outstanding Biochemistry senior thesis. The award is sponsored by Thomas Sidebottom, a Biochemistry graduate of the University of Illinois. The award is a $200 cash prize.