BCMB INDEPENDENT RESEARCH ON BIOPROCESS TECHNOLOGY

BCMB 4030L (4 hr)

Instructor: Dr. David L. Blum

This course is designed for students primarily intending to go straight into industry after their B.S. degree and pursue careers focused in biotechnology. Interested students should email Dr. Blum (blum@uga.edu) with a description of their career plans in order to be considered for this course.

Course Description for Spring 2018

All students who major in Biochemistry and Molecular Biology are required to take ***two semesters*** of independent research (BCMB 4960L/H and BCMB 4970L/H, each 4 hr credit; see course description for more information). BCMB 4030L may be taken in place of BCMB4960L/H. After successful completion of BCMB4030L, the student then takes one (or more) semesters of BCMB 4970L/H in the laboratory of a new faculty member and carries out a new independent research project.

Objective: The objective of this course is to train students in bioprocess technology and the application of the scientific method. Students will be part of a research team and gain experience in both the experimental approach and the culture of a research team similar to a biotechnology company setting. Students in these courses may be able to publish their results in the primary scientific literature or be listed as inventors on patent applications. BCMB 4030L requires no previous laboratory experience.

Registration: Permission of the Department is required to register for these courses. A **REGISTRATION FORM** must also be completed by the student and signed by Dr. Blum. The form can be obtained from the Departmental web site at www.bmb.uga.edu/home/undergraduate/index.htm, from the Biochemistry Office (Life Sci., B122) or from a Biochemistry Advisor. Once the form is signed by Dr. Blum, you must take the signed form to Ms. Angie Stockton in the Biochemistry Office (Life Sci., B122) and you will be cleared to register.

Time Requirement: BCMB 4030L/H is taken for 4 hr credit. For this students should expect to be in the laboratory for a minimum of 12 hr/ week (for 15 weeks). The exact schedule is to be determined by Dr. Blum and the student.

Examinations and Grades: The final grade is determined by the Dr. Blum. This is based on:
a) Performance in the laboratory (40%). This does not mean the number or accuracy of the results! It reflects the aptitude, effort, reliability, dependability, perseverance and meticulousness of the student in the laboratory setting. A final report detailing your findings and including all figures will be required. The report should resemble a brief scientific paper and be of at least 8 pages in length (double spaced, 1" margins). The report should be sub-divided into a) Summary, b) Introduction, c) Experimental Methods, d) Results, e) Discussion and f) References. The report can incorporate aspects of your original plan.
b) Assignments (30%). Each student must complete assignments given during the semester. The assignments are related to the learning objectives of the class detailed in the syllabus
c) *Class participation, Teamwork and Notebook/Form completion (30%).* Students will work in teams and be assessed on their ability to function in the team, participate in the team meetings and accurately document their work on forms and in notebooks. You and your team will create a presentation that summarizes the key findings of your research and present that to the class near the end of the semester.

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REGISTRATION FORM FOR SPRING 2018

NAME: _____

ADDRESS: _____

_____

TEL. NUM. _____ UGA ID: _____

E-MAIL: _____

CREDIT HOURS: 4

NAME OF PROFESSOR David L. Blum, Ph.D.

SIGNATURE OF PROFESSOR _____

Date: _____

SIGNATURE OF STUDENT _____

Date: _____

PROVIDE COMPLETED COPIES OF THIS FORM (prior to Thursday, January 4th) TO:

- David L. Blum, Ph.D. in Life Sciences, Room A414A
- Ms. Angie Stockton in the Biochemistry Office (Life Sciences, Room B122). You will then be cleared to register.

NOTE: By 5 pm, Wednesday, April 25th:

Complete all Assignments and Project reports. Please send your complete Research

Report by email to Dr. Adams (adamsm@uga.edu) and Dr. Blum (blum@uga.edu)

Send the Report as an attachment to the email as a single word.doc or pdf file.