Biochemistry/Molecular Biology policies

Graduation with program distinction

Those with a grade point average (GPA) of 3.5 in the BCMB major will be considered for graduation with distinction by the BCMB faculty members. Additional considerations include demonstrated excellence in research as well as completion of the national assessment test (currently, the ASBMB certification exam).

National exam for BCMB graduates

All BCMB graduates are expected to take a national exam. Currently, the ASBMB (American Society for Biochemistry and Molecular Biology) certification exam is used. The exam is intended for seniors and for those who have completed Biochemistry and a course in Molecular Biology. The exam is offered once a year in the spring semester and requires pre-registration. Students graduating in spring should take the exam in the final semester while those finishing after the fall semester should take the exam in the previous spring semester.

A BCMB faculty member, acting as an exam administrator, will contact eligible students via e-mail at the start of the spring semester and will register students. Currently, the ASBMB Certification Exam is used. There is a cost for the ASBMB exam, which currently is paid by Stockton. The exam takes an hour and must be given within a prescribed timeframe (typically in March). Students who earn high enough scores can earn an accreditation from ASBMB. Since it is expected that all graduates take the exam, failure to do so, without a valid reason, is negatively considered for program distinction decisions. More information about the exam can be found on the ASBMB website. www.asbmb.org/accreditation/certificationexam/

Senior Research Project Guidelines for BCMB Degree

In order to ensure uniformity among the various research experiences available to BCMB students to satisfy the requirements for successful completion of BCMB 4800 (Research Senior Project), the following requirements need to be met:

<u>Expectations prior to beginning the research project</u>
The student should make an arrangement with a specific faculty mentor for their Research Senior Project well in advance of their senior year. Research projects often require a multiple semester commitment depending on the nature of the work. Projects (as described below) are usually conducted with BCMB, CHEM or BIOL faculty, or as a summer Research Experience for Undergraduates (REU) at another institution. Individual faculty mentors may have additional requirements to those described herein.

<u>Expectations during the research project</u>
Students are expected to engage in laboratory research in disciplines such as Biology, Biochemistry, Molecular Biology, Chemistry or the Biomedical Sciences. During the research project students are expected to gain a good understanding of the background and significance of their project, and to read the relevant scientific literature. Students should have an understanding of the hypothesis being tested and the interpretation of data collected. Students are expected to master the experimental techniques employed, and to be able to work effectively, independently, and safely in the laboratory. Students should obtain assistance from faculty mentors to achieve

these goals. Students need to register for research every semester that they are in the lab. They need to earn a minimum of 2 credits for research (BCMB 4800).

After completion of the research project

Students must give an oral presentation of their work at the Senior Symposium held at the end of the Fall or Spring semesters. Student presentations are usually 15-20 minutes in length followed by a five minute question and answer period. The format should follow that of a scientific presentation: A brief introduction, methods, results and conclusions. Students are expected to be well prepared and organized. The audience has broad interests, and will appreciate the student's efforts to provide clear explanations.

Prior to the symposium, students will submit a 200-word abstract describing the highlights of the project (i.e. significance, general statement on methodology, key findings and conclusions). More specific information is made available each semester, or students may contact the BCMB sub-coordinator.

In addition to presenting their work, students must submit a written manuscript (report) in standard scientific format (Abstract, Introduction, Materials and Methods, Results, Discussion, Acknowledgments, and References) describing their work. Students should submit a rough drafts to their Stockton faculty sponsors to allow students to obtain feedback to improve the report. Copies of the draft and final report are submitted to the Stockton faculty research mentor. A project grade will be assigned by the Stockton research sponsor. Grades are assigned by the faculty sponsor based on the following general criteria (40% paper (15 % rough draft, 25 % final draft), 40 % laboratory performance, 20 % oral presentation).

Other considerations: REU, SIRE courses, and Internships may be appropriate to meet the research requirement at the discretion of the BCMB faculty. Students should arrange in advance for a Stockton faculty member to serve as the research sponsor for these projects.

Waiver Procedure

The courses required for graduation with a Biochemistry/Molecular Biology (BCMB) degree can be found in various places: the college bulletin, curriculum worksheet, and in DegreeWorks as well. It is the responsibility of the student to meet all the requirements for graduation. In addition, students should seek guidance from preceptors. In the rare event that a student anticipates not being able to meet the requirements for valid reasons, the student may request a waiver of the BCMB faculty members. Please note that waivers cannot be granted for removing any required class nor for resulting in less than 80 credits in the major.

If a student needs to request a waiver, it must be done both prior to applying for graduation and to the completion of the class involved in the waiver request. The student should compose a written request to the sub coordinator for BCMB that describes why the waiver is needed as well as information about the class (syllabus and course description). It is fine to submit this request via e mail. The sub coordinator will then present the request to BCMB faculty who will vote on the waiver request and sub coordinator communicate the outcome to the student.