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Spring 2-1-2017

### BCH 111.01: Intro Biology for Biochemists Lab

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**Intro Biology for Biochemists Lab**  
BCH 111  
Spring 2017  
Interdisciplinary Science Building (ISB) 008  
Section 1: R, 2:00 PM-3:50 PM  
Section 2: R, 10:00 AM-11:50 AM

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Office: Chemistry Building 311

BCH 111 is the laboratory associated with BCH 110, Introductory Biology for Biochemists. The laboratory experiments supplement and reinforce the lecture material; enrollment in **BCH 110 is a co-requisite**.

**Pre-Lab Exercises** and **Lab Manual** with experimental protocols will be distributed a week in advance. These materials will be available on [Moodle](#).

Students should come to lab prepared and have read the Lab Manual. Be prompt to the labs and have all pre-lab requirements completed before coming to lab. **Students who do not turn in the Pre-Lab Exercises page to the teaching assistant prior to the lab may not be permitted to carry out the experiment that week and could receive a zero for that laboratory exercise. Students who are more than five minutes late to lab may not be allowed to carry out the experiment.**

Students are expected to attend every laboratory session; arrangements must be made to make up the material if a student has a compelling and verifiable excuse.

**Any student missing two or more labs during the semester may receive a grade of F.**

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). Please contact DSS in Lommasson 154 if you think you may have a disability adversely affecting your academic performance. The course instructor will work with you and DSS to provide an appropriate **accommodation**.

An official UM email address must be used for **email correspondence** with the instructor and teaching assistant, according to University policy. Grades cannot be discussed by email, according to FERPA.

**Grading:**

Each lab report is worth 80 points per week of experiments for a total of 1040 points.

A 90% or higher will earn an A– or A, an 80% or higher will earn at least a B–, a 70% or higher will earn at least a C–, a 60% or higher will earn at least a D–, and lower than 60% is at risk of earning an F.

Pluses (+) and minuses (–) will be used (A, A–, B+, B, B–, C+, C, C–, D+, D, and D–).

A CR grade is equivalent to a D– or better and a NCR grade is equivalent to an F.

Lab reports are due on or before the dates indicated in the Lab Schedule. **Late lab reports may have 10 points deducted for each day they are late.**

**Academic misconduct** will be reported and handled as described in the University of Montana Student Conduct Code. *All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code.* The Student Conduct Code defines plagiarism as “representing another person’s words, ideas, data, or materials as one’s own.” Students are encouraged to work together in completing written assignments to solve problems, to share information or resources, and to test each other’s understanding: these are all acceptable forms of collaboration. However, the written work that each student turns in must be her or his own. Only in this way can individual understanding of concepts or information be judged. Students can work together up to the point of writing. At that stage, each student must work independently. In addition, once a student has written an out-of-class assignment, it must not be shown to another student in the course. Assignments from two or more students that have significant overlap as judged by the instructor will be regarded as a violation of the expectation that students turn in independent assignments. Also, direct copying of sentences from any published source, including the Internet, without proper citation is considered plagiarism: write the information in your own words; the instructor will check literary and online resources. These violations will be handled according to the Student Conduct Code.

**Learning outcomes** are to investigate biological phenomena using a variety of biochemical techniques and approaches. Students will be able to:

- Know safety rules for working in a biochemistry laboratory
- Know how to properly use adjustable pipettes
- Know how to grow, handle and count bacteria
- Understand buffers and measure pH
- Use a computer to visualize protein structure
- Assay enzyme activity and analyze reaction kinetics
- Assay and visualize sugars
- Extract and assay plant pigments
- Isolate DNA, perform PCR, and evaluate polymorphisms