LB 273, Fall 2015: Physics of the Life Sciences, I **Grading Policies**

The purpose of this document is to provide detailed information regarding grading policies in LB 274. This includes the determination of grades for individual components of the course, the overall course grade, and information about contesting grades, academic integrity, participation, and missed assignments. This document also contains detailed information about midterm and final exam administration.

Course Grade

The course grade is determined by contributions from several sources: LON-CAPA homework, assignments in the hands-on sessions, in-lecture "clicker questions," and exams. Each of these contributes to the final grade in the following percentages:

- 30% Midterm exams (3 exams, 10% each)
- 15% Final exam
- 10% Clicker questions
- 20% Homework (LON-CAPA and occasional paper-based)
- 5% LON-CAPA reading questions
- 20% Hands-on learning sessions

The course grading scale is as follows:

- 4.0 > 92% 3.5 $\geq 84\%$ 3.0 >76%
- 2.5
- $\geq 68\%$ 2.0 > 60%
- 1.5
- \geq 52%
- 1.0 >44%
- 0.0 < 44%

The grading scale for the semester, as well as the grading on assignments and exams, are on an absolute scale. Grades will not be curved, although we retain the right to adjust scores upward on exams if necessary.

Individual course components

In-lecture activities: Lecture sessions will include a variety of activities. Many will be ungraded; however, the think-pair-share activities (also known as "clicker questions") will be assigned a grade. The majority of lectures will include the use of clicker questions.

This course uses the iClicker-2 system for answering questions posed in lecture. You will get 100% credit for any answer, regardless of whether it is "correct" or "incorrect". You receive 120% credit for any answer that is "correct." Clicker questions count 10% toward your overall course grade, with each lecture where clickers are used counting equally toward the overall clicker percentage.

If you forgot to bring your clicker or failed to register it in LON-CAPA, you cannot receive credit for clicker questions that day. You cannot share the same clicker device with another student, since the serial number for a given clicker is assigned to a single student.

Hands-on Learning Session: During the hands-on component of this section, you will work on a variety of assignments: physics tutorials, in-class guided problem solving, laboratory exercises, and occasionally some other activity that has intellectual utility for the course. These assignments are meant to help you with your conceptual understanding of the material and with your problem-solving skills. These assignments will be worked on in groups of 2-4 students, depending on the project, and all individuals in a group will receive the same grade for a given assignment. Collaborative learning is highly encouraged in these sessions.

The hands-on component of the course is worth 20% of the overall course grade. Each week's hands-on session is worth a total of 20 points, which will generally be allocated as follows: 10 points will be awarded for active participation in your session (which implicitly includes attendance). A group assignment will be graded for a maximum of 5 points, and an individual problem will be graded for a maximum of five points. All graded assignments must be turned in at the end of the session, and will be returned at the beginning of the next session.

Homework: Homework is assigned primarily using course's LON-CAPA website, and is generally due at 11:59 p.m. on the assigned day. This consists of multiple-choice, numerical response, and graph-oriented questions. Each homework assignment focuses on a specific topic. Occasionally we might assign a "paper-based" homework. These assignments will given as supplementary to the LON-CAPA homework and will be due in class on Fridays. In weeks in which "paper-based" assignments are given, the number of LON-CAPA problems will be reduced accordingly. Both LON-CAPA homework and paper-based homework contribute to the total homework percentage. The homework courts for 20% of the overall course grade.

LON-CAPA reading questions: A small number of free-response and quantitative questions based on the reading material will be due shortly before a given topic is discussed in class. Each assignment will focus on one chapter from the book, though more than one assignment may be due on the same day. The reading homework counts for 5% of the overall course grade, and each assignment counts equally toward the overall percentage.

Exam Information

Midterm and final examinations will be composed of primarily free-response questions, and will take place in C-106 Holmes Hall. For each exam, you should bring pencils, an eraser, a calculator (graphing calculators are fine), and a 3"x5" index card with hand-written notes (three index cards can be brought to the final exam). We will provide a formula sheet. Exam questions will be taken from the reading materials, topics discussed during the lectures, the homework, and from the work that you do during your hands-on sessions and related assignments. You are responsible for ALL material in the course, not just what is directly discussed in lecture!

Midterm Exams

Three midterm exams will be given, and will be spaced approximately equally throughout the semester. Each of these exams is worth 10% of the total grade for the semester, and will cover the chapters listed in the course calendar (approximately 4-5 weeks of material per exam). You are allowed to **bring one 3"x5" index card** with hand-written notes to each midterm exam. The midterm exam dates are:

- 1. Monday October 5 (Chapters 1-3.4)
- 2. Monday November 2 (Chapters 4-7)
- 3. Monday November 23 (Chapters 8-10)

We will make a copy of the midterm exam available on the LON-CAPA page shortly after its conclusion. You will have the opportunity to correct ONE question on the exam, by providing a revised, correct solution to a problem that you made a reasonable attempt to solve during the exam itself. This should be turned in at the beginning of class on the Wednesday after the exam (two days later). You will receive half the difference between the grade you get on this correction problem and the grade given on the same question on the exam itself. For example, an exam question is worth 10 points, but you only receive two points for it on the exam. Your correction problem is completely correct, so you will receive (10-2)/2 = 4 additional points on your exam. If you provide an incorrect or incomplete "correction problem," you will NEVER lose points. You must redo solution to the entire problem, not just the portion of it you got wrong – this includes multi-part problems!

The exams (including the correction problems) will generally be scored by the following Monday, and you will see the results posted online as soon as the grading is completed. We will return the exams to you in lecture after they are graded, and will go over the exam in lecture. Solutions will be available online.

As mentioned previously, we do not curve exams. However, if we deem that an exam question is unfair, we reserve the right to throw out that question, with point totals being adjusted accordingly.

Final Exam

Approximately one-third of the final exam will be on the last few weeks of material (that material which was not covered by the midterm exams), and the rest will be a cumulative exam covering the entire course. The material covered is NOT constrained to material that has previously appeared on midterms. As with the midterm exams, a formula sheet will be provided. You are allowed to **bring three 3"x5" index cards** with hand-written notes (rather than the one card allowed for each midterm exam). The final exam is worth 15% of the overall course grade.

Two final exam sessions will be offered:

- 1. Session A: Friday Dec. 18, 10:00 a.m. 12:00 noon.
- 2. Session B: TBD (this will be announced in November)

You can choose to attend either of the final exam sessions. As finals week approaches, a survey will open up on LON-CAPA that will allow you to reserve your seat in one of the exam sessions. Given this flexibility, you are expected to resolve any scheduling conflicts by discussion with the professors leading your other classes. Further information about the finals (including the time/date of Session B) will be made available near the end of the semester.

Exam makeup policy

Students who must miss an exam for an official university-related reason (e.g., varsity sports, field trip, conference) must inform course faculty as far ahead of time as possible (at least two weeks) and find an alternate time to take the exam, and to turn in the makeup problem. This will likely be prior to your departure for the event in question!

Students who miss an exam for an emergency (e.g., medical emergency, illness, car accident) must inform course faculty as soon as possible after the event, and must provide appropriate documentation. Depending on the circumstances, a makeup exam or other accommodation will be worked out in consultation with course faculty and, if necessary, the Lyman Briggs College Dean's Office.

An exam that is missed for other, undocumented reasons (e.g., sleeping through it) will receive a grade of zero.

Students who fail to take the final exam for any reason will receive a grade of zero in the cours

Other administrative information

Attendance and missed assignments

A substantial fraction of your grade comes from active participation in lecture (as measured by iClicker usage) and in the hands-on sessions (as measured by group work). If you must miss either lecture or your hands-on session for a university-approved reason (field trip, conference, etc.), contact the appropriate course faculty ahead of time and provide documentation of the reason for your absence. If you have an emergency of some sort (illness, car accident, etc.) please contact the course faculty as soon as is practical afterward to inform them and to provide documentation. Documented absences for acceptable reasons will be treated on a case-by-case basis. Undocumented/unacceptable absences will receive a grade of 0 for that session.

Contesting grades

Everybody makes mistakes, including the professors and the TAs and LAs grading your assignments. If you feel that you have received an incorrect grade on an assignment or exam, you can contest it by appealing directly to Professor Sawtelle or Professor Doughty via email. Disputes regarding hands-on session grades should go to Alanna Pawlak - please put the assignment in their mailbox (in the Lyman Briggs mail room) with a written note explaining exactly what you feel is wrong and why. **Requests for re-grading of assignments are due within one week of the assignment being returned to you, with the last opportunity to contest grades being 5:00 p.m. on the last day of classes for the semester.** We reserve the right to re-grade the entire assignment that is under review, not just the question you feel has been incorrectly graded.

Academic Honesty

The Lyman Briggs College Honor Code states "I will neither give nor receive any unauthorized assistance in completing my work, which includes, but is not limited to: papers, reports, exams, group work, and classroom conduct." In the context of this course, that includes getting answers from other students on questions relating to the course reading materials, copying homework or extra credit assignments, cheating on exams, using another student's iClicker, or having your iClicker used by another student. Students caught cheating or plagiarizing will suffer severe consequences, ranging from failing the assignment in question to failing the entire course, with possible additional penalties. In addition, University policy requires that any cheating offense, regardless of the magnitude of the infraction or punishment decided upon by the professor, be reported immediately to the dean of the student's college.

Electronics in the classroom

The LBC physics faculty permit the use of electronics in the classroom for educational purposes. Use of electronics for non-course-related purposes (texting, Facebook, etc.) or in any manner that distracts your fellow students or course staff is not permitted. Repeat offenders will lose participation credit for the day in question, and egregious offenders (particularly those who distract others) will incur additional penalties (e.g., the loss of all clicker points or hands-on participation points for the semester, or reduction of overall course grade).