MB&B/BIOL 181 — Principles of Biology I Lecture

MTWRF 1:30-3:10pm

Professor Sarah M. Kopac, Ph.D.

Instructor

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Format: All lectures and discussion sections will meet online via Zoom.

Attendance at lectures and discussion sections is required.

Textbook: Alberts, Bray, et. al. Essential Cell Biology, 5th edition.

Other editions of the text might be used, but students are responsible for finding the correct sections and page numbers.

Recommended Resources:

- Either a reliable scanner or scanner app will be required for uploading assignments. Access to a printer is recommended but not required
- Two screens (e.g. phone + laptop) are best for problem sessions or 1
 screen + slide printouts or physical textbook

Learning goals

In this class, we'll cover the crucial components of cells, including the structure and function of macromolecules (including DNA, RNA and proteins), organelles (including the nucleus,

A note on the font: Dyslexie is a specially designed font made to emphasize differences between letters for easier reading, particularly for those with reading disabilities.

endoplasmic reticulum, and other membrane-bound organelles) and structures composing the cell skeleton. We will also discuss cellular activities that involve one or more of these cellular components, including the cell cycle, membrane transport, energy generation, and cell-cell communication. The class will focus mainly on human cell biology but will also cover some comparisons with bacterial and fungal cell biology.

For success in this course:

Please check Moodle and your Wesleyan email often. The schedule can and will be updated as we move through the condensed semester. It is your responsibility to stay up to date.

Problem-based learning

Our course will include problem-based learning activities.

During these times, students will work in pairs to think critically and apply concepts that we have covered in class. These sessions



will include questions that simulate analyzing data similar to that which might be generated in a lab. The goal of the problem-based sessions is to use our knowledge in a different way, to form new connections in thinking to ultimately enhance learning.

In our course, we will start at the

base of the pyramid at left but will also aim to add skills such as understanding and applying our knowledge to become better scientists.

Evaluation

Exam 1: 15%
Exam 2: 20%
Final exam: 20%
Quizzes: 18%
HW 25%
Participation 2%

 An account on gradescope.com will be initiated for you.

A note on submitting assignments online

In my experience, submission of online assignments in improper format is one of the most common road blocks in an online course. The following scenario is common:

The wrong file format change in the file extension (for example, .pdf) causes submission to be blank. The blank submission is given 0 in the gradebook. The student panics... and then a significant amount of my/the student's time is spent trying to work things out. If you have had problems submitting files online:

- Try a different file type (pdfs and Word docs are best)
- . Mac users should save Pages documents as pdfs
- Chromebook users should copy & paste pdfs into a Word doc
- . NO ONE should submit via Google docs or OneDrive

Many assignments will be through this site

Late policies:

- Quizzes & exams may not be taken late for any reason other than one which is excused by the Dean.
- Homework assignments are due at 1:30 PM unless otherwise noted. <u>Late assignments will be given a 0.</u>
 - One assignment per student will be dropped- this can be the lowest grade OR a missing assignment
- Please be advised that any absences will be counted as such,
 regardless of the reason. We have one three day weekend (June

11-13th); students are encouraged to take advantage of this for any travel plans.

Honor Code

Students will be expected to uphold the Honor Code. Any violation of the Honor Code will be reported and the student will receive a zero for the assignment in question; further repercussions may include failure of the course and/or suspension/expulsion, depending on the decisions of the Honor Board. See the Student Handbook and records of the Student Honor Board 2019-2020 for details.

Plagiarism (Copying):

If the submitting student is found to not be the original creator of the content, the student will be given a zero for the assignment. Students can work together on <u>specified</u> assignments but submissions must be uniquely written (and phrased) by each individual.

Most assignments will be submitted to plagiarism detecting systems. Assignments can be stored in these systems to identify plagiarism in the future. Assignments will also be analyzed for use of autoparaphrasing sites. These sites produce results that have poor grammar, phrasing, and flow; therefore, points will be deducted for these items.

Exams:

Any indication that students have spoken to peers, consulted a website, textbook, or slides during exams or quizzes will be given a 0 for that evaluation and a case will be submitted to the appropriate administrative bodies.

Disabilities & accommodations

If you qualify for extra time, an alternate evaluation environment or any other accommodations, please send me an email at skopac@wesleyan.edu immediately to discuss and complete paperwork. I am committed to ensuring that all qualified students with disabilities are afforded an equal opportunity to participate in and benefit from its programs and services. Wesleyan's policy is that any student receiving accommodations must present documentation as defined by Section 504 of the Rehabilitation Act of 1973 and the ADA Amendments Act of 2008. Those who would like to request accommodations or determine if they are eligible for Accommodations can contact Disability Resources (North College Room 021, 860-685-5581).

Learning strategies

• Repetition is key. Going over concepts multiple times is a proven way to learn. If this sounds boring, that's ok- you don't need to go over the material in the same way every time. If you read, come to class and listen, ask questions and/or explain concepts to a roommate or family member, and take notes, each time

you're repeating the information to yourself without doing the same exact thing.

- Make sure to preview the reading assignment before each class.
 Reading science textbooks can take a lot of time, but it will give you a deeper understanding of the material.
- Discussion and active participation are always encouraged! This will contribute to your grade and is also another way of learning (remember: repetition!)
- Not every single fact will be written out on slides, so it's essential that you take good notes on what is said and discussed in class. Studies have proven that hand-written (and drawn) notes enhance learning over typed notes. If you're having trouble keeping up with my lecturing because you're writing by hand, just ask me to slow down.
- Review the material from class every day. A good strategy is to do the assigned reading and then go over your notes. Some students like to add to their notes as they read. This is generally much more useful than highlighting. We will cover a lot of material is a very short amount of time, so it's essential to keep up with the material.
- · Ask questions! This is one of the best ways to learn. Please feel free to talk with me individually if you don't understand

something we went over in class, if you have questions about an assignment, or if you want clarification about something.

- Get easy points. Some easy ways to boost your exam scores:
 - Review homework and problem session answer keys
 - Never leave an answer blank- partial credit is better than no credit
 - · Read questions completely before answering on evaluations