

Course Syllabus

Course Prerequisites

Bi214 or Bi252 or equivalent are required. If you are uncertain about whether you have met the prerequisites, please email me. *If you lack the prerequisites, I encourage you to read Chapters 1 - 5 of the textbook, Essential Cell Biology (5th edition) before the start of the course.*

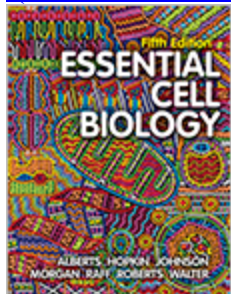
Course topics and goals

This course covers eukaryotic cell biology. You will learn the components of a eukaryotic cell and how they are inter-related; methods cell biologists use to study cells (including light microscopy, laser scanning confocal microscopy, electron microscopy, genomics, and other cutting edge techniques); and a glimpse of the role of cells in development and cancer. We will not cover plant cells or prokaryotic cells.

The goals of this course are to give you (1) a basic knowledge about the fundamental concepts of cell biology; (2) a working cell biology vocabulary; (3) an understanding of the methods used by cell biologists; and (4) practice thinking analytically and synthesizing information, so that you will be better equipped to read and critically analyze primary scientific literature or media reports on cell biology topics (e.g. stem cell research).

Course textbook

Required readings are mostly from the new 5th edition of Essential Cell Biology (ECB). This is available as a hard copy or as an ebook: [5th Edition ECB \(Links to an external site.\)](#)
([Links to an external site.](#))



W. W. Norton & Company, Inc.
independent publishers since 1923

Essential Cell Biology
Fifth Edition
Alberts • Hopkin • Johnson
Morgan • Raff • Roberts • Walter

The science library is working on getting access to ebooks, Please check in with them.

In each weekly module, there will be a page dedicated to each chapter to be covered, with an overview, focus material, and additional resources, such as videos, learning objectives and flashcards from the textbook.

Focus material.

I have provided additional material on subjects that delve beyond what is provided in the textbook. Often these concern subjects that are close to my heart, or concern

subjects that get short shrift in the textbook and research in general, or are subject matters that I think one should know as a biology student with a molecular / cellular focus.

Techniques Modules.

These are provided to allow you to explore common cell biological techniques. Think of them as virtual field trips.

Discussions.

Each week I will provide a discussion topic that you will discuss with your group. I expect you to first try to answer the question and then make comments on other's answers in a respectful way. We will then go over the discussion topic and any other questions you have in office hour zoom meetings.

Reading Quizzes.

These can be taken twice and serve as a tool to ensure that you are absorbing the reading material.

Tests.

These are to be taken once and will help unlock the next week's module. They contribute more to your grade and will prepare you for the types of questions in the exams.

Exams.

There will be two midterm exams and one final exam. The exams will cover material from both readings and focus material. They are scheduled over several days, maximizing your flexibility as to when you can take them.

Grading.

Your grade will be based on the point distribution below. I generally do not grade on a fixed curve.

| | | | |
|---------------------|-----|-----|-----------------------------------|
| Surveys | (3) | 5% | |
| Reading Quizzes (8) | | 5% | |
| Tests | (9) | 15% | 2 worst scores will be dropped |
| Discussions | (3) | 10% | |
| Midterms | (2) | 35% | |
| Final | (1) | 30% | |

Office Hours

Office hour zoom meetings will be every Wednesday from 10:30am till noon. Some of these will serve as follow up for discussion assignments, and all will offer a chance to ask any questions. As a web-based course, participation is entirely voluntary, but I think the personal contact will help consolidate the material.

In addition, you can schedule a personal zoom meeting with me at anytime by emailing me: pwash@uoregon.edu

[Communicating with Prof. Washbourne](#)

Professional Conduct

You are expected to follow the student conduct code; academic dishonesty includes cheating, plagiarizing or knowingly supplying false information. If you are aware of academic dishonesty occurring, please contact me.

Schedule.

Although the goal of this online course is to maximize schedule flexibility, the short duration and amount of content make it imperative to work through the material at a steady pace. For this reason, the Chapter materials are made available in a weekly sequence. By completing the tests and the discussion each week, you will be able to move on to the next week's module. The techniques modules do not have a time constraint: you can work on that material whenever you want.