BIOL 115L-01 – CELLS & THE EVOLUTION OF LIFE (LAB)
Spring 2021

INSTRUCTOR INFORMATION
Mary Oswald, Ph.D.
moswald@uidaho.edu
Office: Life Sciences South 260
208-885-4095
Tentative Office Hours: Tues/Thurs, 9:00-10:00am (scheduled by VandalStar or walk-in); or by appointment (requested via email). Appointments may be either in-person or via Zoom.

I will communicate with you by university-sponsored email. Please be sure to check your email account often, and ensure that my email address is not blocked.

If at any point you are struggling with the material or have life issues that impact your academic work, you need to contact me immediately so we can work together to come up with potential solutions as soon as possible.

CLASS FORMAT:
The 115L labs are all on-line this semester. There are no required in-person meeting times. Material will be assigned using the course BbLearn site and McGraw-Hill Connect’s virtual labs. A teaching assistant will be available at posted times to help with the course, in addition to the instructor’s office hours.

PREREQUISITE:
You must have passed or be enrolled in Biol 115 (the lecture) to enroll in Biol 115L (the lab).

COURSE DESCRIPTION:
In this course, you will be introduced to foundations of cellular-level biology and laboratory techniques used in related research. You will be using basic biology laboratory techniques across the topics of the chemistry of life, cell structure, metabolic pathways, meiosis and mitosis, and inheritance.

COURSE OBJECTIVES:
The over-arching goal of Biol 115 (lecture and laboratory) is to prepare students for future coursework in biology-related sciences. Preparedness encompasses 3 general areas: 1) foundational knowledge & understanding of biology, 2) skill as a scientist, and 3) skill as a student. By the end of the semester, a successful student will have:

- a foundational vocabulary and understanding of the cellular processes vital to life on Earth, including the following core areas
  - Relevance of chemistry to biology
  - Large biological molecules (structure, function, & importance)
  - Cellular structure and function (membranes, metabolism, & division)
  - Inheritance of traits (Mendelian genetics & meiosis)
  - Protein synthesis (process, importance, & mutation effects)

- increased awareness of science as a process rather than simply a collection of facts to be memorized
- increased confidence in generating scientific hypotheses and interpreting scientific data
- increased ability to communicate scientific information
LEARNING OUTCOMES: In accordance with the University’s Learning Outcomes -
Learn & Integrate: Students will synthesize previous biological knowledge with knowledge gained from
laboratory exercises to attain an understanding of the cell and heredity.

Think & Create: Students will synthesize and apply their knowledge of biological processes by
conducting laboratory exercises connected to their Biol115 lecture experiences.

Communicate: Students will become conversant in the language used in biology, and will practice the
language of biology in short writing assignments.

Clarify Purpose & Perspective: Students will demonstrate an appreciation of how biology concepts from
this class impact their lives.

Practice Citizenship: Students will attain basic biological knowledge, which will allow them to make
informed contributions to discussions of issues that impact humans and the environment, for ex: health
and medicine, genetic counseling, science education, etc…

COURSE MATERIALS

Required Virtual Labs. McGraw-Hill’s Connect system, virtual lab software. This package is
automatically included in your UI fees with Inclusive Access (there is nothing to purchase separately from
the bookstore). You will create an account for the labs within our course BbLearn site, and access the
assignments there, too. Further information will be presented at the beginning of the semester.

Biol115 lecture. The textbook is a good resource for the lab, but is not required.

Course website: https://bblearn.uidaho.edu/webapps/login/Biol115L
The course website will include a copy of the syllabus; laboratory instructional materials and assignments,
and grades. This will also be my primary form of communication with you outside of class. Check the
website often!

ASSESSMENT:

<table>
<thead>
<tr>
<th>Categories of Assessment</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Exams</td>
<td>100</td>
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<tr>
<td>Labs</td>
<td>130</td>
</tr>
<tr>
<td>PostLab Exercises</td>
<td>240</td>
</tr>
<tr>
<td>Writing Exercises</td>
<td>40</td>
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<table>
<thead>
<tr>
<th>Grading Scale</th>
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<tbody>
<tr>
<td><strong>Total Points</strong></td>
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<tr>
<td>-----------------</td>
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<tr>
<td>459+</td>
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<tr>
<td>408</td>
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<tr>
<td>357</td>
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<tr>
<td>306</td>
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<td>&lt;306</td>
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I typically DO NOT curve individual exams or the course as a whole, so please don’t ask. I round to the nearest whole % for the final grade (example: a total percentage of 89.5 would be rounded up to a 90, while an 89.4 would be rounded down to an 89).
Exams: These will assess your recall and understanding of the topics covered in the labs. Questions will assess your ability to interpret and graph data similar to those from the laboratory exercises, and allow you to demonstrate your factual knowledge of the subject matter.

Labs: Completion of the virtual labs (or any other work assigned to this category) will result in full credit for that week’s work. Labs must be completed by 11:59pm on Fridays for full credit.

PostLabs: After completing the Labs, you will complete a question-based assignment to demonstrate your understanding of the material, typically (but not always) within the Connect system. Points are earned for answering the questions correctly. Questions will be a combination of multiple choice and short answer. Postlabs must be completed by 11:59pm on Fridays.

Writing Prompts: There will be 4 short writing prompts throughout the semester to help you connect the coursework to ‘real world’ applications and practice your technical writing. More information will be provided as these prompts are assigned.

<table>
<thead>
<tr>
<th>Week</th>
<th>LAB TOPIC</th>
<th>Available</th>
<th>Due</th>
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<tbody>
<tr>
<td>1</td>
<td>Virtual Lab familiarization</td>
<td>13-Jan</td>
<td>22-Jan</td>
</tr>
<tr>
<td>2</td>
<td>Lab Safety &amp; Quantification</td>
<td>16-Jan</td>
<td>22-Jan</td>
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<tr>
<td>3</td>
<td>Biomolecules</td>
<td>23-Jan</td>
<td>29-Jan</td>
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<tr>
<td>4</td>
<td>Microscopes*</td>
<td>30-Jan</td>
<td>5-Feb</td>
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<tr>
<td>5</td>
<td>Diffusion &amp; Osmosis</td>
<td>6-Feb</td>
<td>12-Feb</td>
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<tr>
<td>6</td>
<td>Enzymes*</td>
<td>13-Feb</td>
<td>19-Feb</td>
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<tr>
<td>7</td>
<td>Respiration</td>
<td>20-Feb</td>
<td>26-Feb</td>
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<tr>
<td>8</td>
<td>Photosynthesis</td>
<td>27-Feb</td>
<td>5-Mar</td>
</tr>
<tr>
<td>9</td>
<td><strong>Midterm Exam</strong></td>
<td>6-Mar</td>
<td>10-Mar</td>
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Spring Break
10 Cell division
11 Meiosis & nondisjunction
12 Inheritance*
13 Microbes1
14 Microbes2*
15 **Review time**
16 **Final Exam**

*BWriting prompt associated with this lab

EXCUSED ABSENCES

Only students with major medical/family issues or written official university excuses will be allowed accommodation on assignments. Accommodation make take the form of make-up work or dropping an assignment from the student’s grade. Makeup work may differ from the original assignment. Final acceptance of accommodation is at the discretion of the instructor. Arrangements must be made at least ONE WEEK PRIOR to your absence in the case of known schedule conflicts (ex: participation in official university sporting events, course field trips, etc…). In the case of an emergency/non-scheduled absence (major medical/family issues), accommodation must be requested immediately following the absence (don’t expect to be granted make-up work if a month goes by between the emergency and your request). It is the student’s responsibility to document the extent of his/her issue and promptly make a written request for accommodation.
GRADE DISPUTES:
Keep every graded item handed back to you for the entire semester; this is useful for studying as well as insurance against typos when scores are entered into the gradebook. If you feel that an assignment has been graded incorrectly, you have one week after receiving the graded assignment to dispute your score. You must return the assignment to your instructor or TA, along with a written request for re-grading that includes a description of the dispute. Final grade assignment is at the discretion of the instructor or TA.

COMMUNICATION:
Spelling, grammar, punctuation, logic and legible handwriting are critical elements of communication. You may lose points on assignments and exams for misspelling, poor grammar or syntax, improper punctuation, flawed logic or illegible handwriting.

ACADEMIC HONESTY:
Refer to Article II of the UI Student Code of Conduct (http://www.uidaho.edu/DOS/judicialaffairs/studentcodeofconduct/articleii). Plagiarism or academic dishonesty will not be tolerated in any form. Offenses will lead to an F on the assignment or in the class, letters to your Department Chair and College Dean, and a formal complaint filed with the Dean of Students. Be aware than even one incident of academic dishonesty may result in expulsion from the university.

ACADEMIC SUPPORT; TUTORING & COLLEGE SUCCESS
TCS offers three distinct services dedicated to student success: tutoring, SI–PASS, and Academic Coaching. Vandal Tutoring provides drop-in style tutoring in person at the Library or online through uidaho.edu/tutoringonline at no cost to undergraduates. SI-PASS provides peer assisted study sessions for difficult courses. You can find the schedule of currently supported courses at uidaho.edu/si. Academic Coaching offers students an opportunity to work with a coach, one on one, to improve their academic skills such as: effective studying, test taking, time management, and note taking. Visit uidaho.edu/academic-coaching to schedule an appointment.

CENTER FOR DISABILITY ACCESS & RESOURCES
Students with disabilities needing accommodations to fully participate in this class should contact Center for Disability Access and Resources (CDAR). All accommodations must be approved through CDAR prior to being implemented. To learn more about the accommodation process, visit CDAR’s website at www.uidaho.edu/edar or call 208-885-6307.

Please notify the instructor during Week One of classes if accommodations are required.

UNIVERSITY OF IDAHO CLASSROOM LEARNING CIVILITY CLAUSE
In any environment in which people gather to learn, it is essential that all members feel as free and safe as possible in their participation. To this end, it is expected that everyone in this course will be treated with mutual respect and civility, with an understanding that all of us (students, instructors, professors, guests, and teaching assistants) will be respectful and civil to one another in discussion, in action, in teaching, and in learning. Should you feel our classroom interactions do not reflect an environment of civility and respect, you are encouraged to meet with your instructor during office hours to discuss your concern. Additional resources for expression of concern or requesting support include the Dean of Students office and staff (885-6757), the UI Counseling & Testing Center’s confidential services (885-6716), or the UI Office of Human Rights, Access & Inclusion (885-4285).

FIREARMS POLICY
"The University of Idaho bans firearms from its property with only limited exceptions. One exception applies to persons who hold a valid Idaho enhanced concealed carry license, provided those firearms remain concealed at all times. If an enhanced concealed carry license holder’s firearm is displayed, other than in necessary self-defense, it is a violation of University policy. Please contact local law enforcement (call 911) to report firearms on University property."