



**American University of Beirut**  
**Faculty of Arts and Sciences**  
**Biology Department**  
**BIOL 201 Laboratory Syllabus and Schedule**

<b>Section</b>		
<b>Time and Venue</b>		
	<b>Laboratory Coordinator</b>	<b>Instructor</b>
<b>Name</b>	Mohammad S. Al-Zein	
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<b>Office Phone Extension</b>	3896	
<b>Email</b>	<a href="mailto:ma73@aub.edu.lb">ma73@aub.edu.lb</a> The best way to get hold of me is by e-mail. When you e-mail me, please use your university e-mail account (ending with @aub.edu.lb). Kindly make sure that you include the word "BIOL 201" in the title of your e-mail and sign the e-mail with your full name. Please avoid using abbreviations. Although I attempt answering your e-mails within 24 hours, please do not expect replies in a very short period of time, late at night or very early in the morning.	
<b>Office hours</b>	Mondays 10:00-10:50 AM Tuesdays 3:00-3:50 PM Wednesdays 11:00-11:50 AM Fridays 9:00-9:50 AM  Please take an appointment using the following link: <a href="https://mohammadsalzein.as.me/">https://mohammadsalzein.as.me/</a>  You may take an appointment by emailing me if none of my office hours suits your schedule.	

**Laboratory Manual:** Vodopich, D. S. and R. Moore. 2017. Biology Laboratory Manual. Mc-Graw Hill.

**Please purchase a digital copy of the 11<sup>th</sup> edition of the laboratory manual with a Connect code (Available at the AUB Bookstore). Every student is supposed to have his/her personal code to be able to take the on-line assessments on Connect. Instructions on how to register for the laboratory component of the course on Connect are posted at the laboratory Moodle page and included at the end of this syllabus.**

**Other References:**

The following references are available on closed reserve in the Science and Agriculture Library:

1. A Guide to Biology Laboratory (3<sup>rd</sup> Edition) by Thomas G. Rust.
2. Van de Graaff's Photographic Atlas for the Biology Laboratory (7<sup>th</sup> Edition) by Byron J. Adams and J. L. Crawley

**Laboratory Goals:** During laboratory, you will have the opportunity to administer many experiments and simulations that will help you understand the concepts covered in the lecture component of the course. You will have the chance to examine representatives of the diversity of life we share our planet and understand their evolutionary history and their importance to us. You will also become familiar with many curious and little known organisms with whom we share this planet. Emphasis will be placed on bacteria, protists and fungi. Plants and vertebrates will be discussed in BIOL 202.

**Laboratory Grading:**

The laboratory component of BIOL 201 is worth 25% of your course final grade, divided as follows:

14%	7 laboratory reports (R1-R7 in laboratory schedule); 2% each
8%	4 in-class quizzes
2%	On-line pre-laboratory assessments
1%	Attendance and participation

**Laboratory Guidelines:**

- You must complete all assigned work during the regular laboratory session.
- **There will be no makeup laboratory sessions.** You must attend the section in which you are registered on AUBsis. If you are unable to attend your usual laboratory session due to an accident or illness, we can sometimes place you in a different section for that week, pending the approval of the laboratory coordinator; however, you will need a written note or email from your academic advisor, or your physician, explaining your absence from your usual laboratory section. We will NOT schedule

makeup sessions for social events or travel convenience. You must notify your instructor and the laboratory coordinator as soon as possible if you need to reschedule a laboratory. **Only the laboratory coordinator may reschedule a laboratory.**

If you miss a laboratory session for a valid reason and fail to make it up by attending another section (only possible upon approval of the laboratory coordinator), your grades for any assessments you consequently miss will be replaced by your average grade for the same assessment type. If you miss a second laboratory session for a valid reason and fail to make it up, you will receive a grade of zero for the assessments undertaken during that session.

**Students are responsible for all announcements made and all material covered during any laboratory session (including missed sessions). Any student who misses three laboratory sessions or more will be asked to withdraw from the course.**

- **Quizzes.** In-class quizzes will always be administered at the beginning of laboratory sessions; therefore, you are urged to arrive on time. **There will be no makeups for quizzes.**
- **Reports.** Several laboratory sessions require a laboratory report. These reports will be completed during laboratory and will be submitted at the end of the session. You cannot finish a laboratory report at home or after the laboratory session has officially ended.
- **Be prepared when you come to the laboratory.** Read the assigned exercise(s) in the manual in advance, to ease the osmosis of knowledge. Use the manual as you examine slides and specimens. The laboratory manual also contains step-by-step instructions for experiments and dissections. Whenever you examine slides in the laboratory, it is recommended that you print, when available, the discussions that are posted on Moodle and bring them with you to class. Quiz questions are often based on recognition and recall, and the manual can help you remember what you examined in the laboratory. Always check the companion website to the laboratory manual, complete the pre-laboratory questions, go through the directed presentation for that laboratory, watch any animations or videos available and take the on-line laboratory quiz available through the site. Do not forget to take the pre-laboratory on-line assessments when available.
- **Clean your station thoroughly before you leave.** Your area must be clean, your microscope properly stored, and all display materials returned to wherever you found them. Be sure to return slides to the proper tray or box.

- You will be held responsible for any damage you do to the microscopes, slides or equipment. Don't try to rush through the exercises. Remember that everyone in laboratory may be working with sharp blades. No running around the room with scissors! **You will be charged for any damage you do in the laboratory.**
- You must abide by all laboratory safety rules and regulations at all times during the laboratory.
- All cell phones must be put off and away during the laboratory session.
- **Have fun! Laboratory sessions shouldn't be a grind!** This will be your first (and perhaps only) chance to see many of the strange and interesting creatures with whom we share this planet. Unless the display material labels or teaching assistants say otherwise, the first rule in the lab is **“Handle with care”**.

#### **Department of Biology’s Policy Regarding Laboratory Gowns:**

Any student attending laboratory sessions is expected to bring his/her own laboratory gown to each and every session. If a student forgets her/his gown for any reason, they may borrow one from the Department’s store (room 211, second floor, Biology Building). Students are only allowed to borrow a laboratory gown twice per semester. On the third time, they will get zero for the semester’s laboratory evaluation (1% of course grade) and they won’t be allowed to join the session that day.

To borrow a laboratory gown:

1. Receive a signed permission form from your laboratory instructor;
2. Hand in the signed permission form to the Department’s laboratory manager (Mrs. Rania El-Osta, Room 106A) or laboratory coordinator, Mr. Mohammad Al-Zein (Room 101A);
3. Pay a fee of 5000 LL for laundry services to Mrs. El-Osta or to Mr. Al-Zein, and receive a receipt;
4. Give the receipt to the store keeper (room 211) along with your ID to receive a laboratory gown;
5. Finally, return the laboratory gown to store keeper at the end of laboratory session that day and get back your ID.

#### **Academic Integrity:**

Please refer to AUB Student Code of Conduct:

<http://website.aub.edu.lb/rep/cec/spaac/Documents/RevisedStudentCodeConduct.pdf>, in particular Section 1.1, which concerns academic misconduct including cheating, plagiarism, in-class disruption, and dishonesty. Please be aware that misconduct is vigorously prosecuted and that AUB has a zero tolerance policy.

**Course policy is that credible evidence of cheating will result in course failure.**

**Difficulties and Special Needs:**

If you are experiencing difficulties with laboratory content or with anything that your instructor and/or the laboratory coordinator can help you with, please let them know. Also inform the laboratory coordinator as soon as possible of any special needs you might have, particularly medical conditions that may require special accommodation.

The American University of Beirut strives to make learning experiences accessible for all. If you anticipate or experience academic barriers due to a disability (such as ADHD, learning difficulties, mental health conditions, chronic or temporary medical conditions), please do not hesitate to inform the Accessible Education Office. In order to ensure that you receive the support you need and to facilitate a smooth accommodations process, you must register with the Accessible Education Office (AEO) as soon as possible: [accessibility@aub.edu.lb](mailto:accessibility@aub.edu.lb); +961-1-350000, Extension: 3246; West Hall, Room 314.

**Conflict Resolution:**

If you are having problems with another student in the class, please try to resolve them; otherwise bring them to the attention of your instructor. If you have problems with your instructor, please try to resolve them; otherwise, let the laboratory coordinator know as soon as you can. If you have problems with the laboratory coordinator, please try to resolve them with him; otherwise, they may be taken to your course instructor.

**Non-Discrimination:**

The American University of Beirut is committed to facilitating a campus free of all forms of discrimination including sex/gender-based harassment prohibited by Title IX. The University's non-discrimination policy applies to, and protects, all students, faculty and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University's Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at [www.aub.edu.lb/titleix](http://www.aub.edu.lb/titleix). To report an incident, contact the University's Title IX Coordinator at 01-350000 Extension: 2514, or [titleix@aub.edu.lb](mailto:titleix@aub.edu.lb). An anonymous report may be submitted online via EthicsPoint at [www.aub.ethicspoint.com](http://www.aub.ethicspoint.com).

**Changes:**

The laboratory coordinator reserves the right to make reasonable changes to this syllabus provided that he gives all students registered in the class a timely notification of the changes to be made.

### Laboratory Schedule:

Week of	Exercise	Topic	Pre-laboratory Assessment (Connect)	Laboratory Report	Quiz
<b>Sept. 10</b> <b>(Makeup for Tuesday sections TBA)</b>	3, 24	Introduction and Logistics; General Laboratory Safety; The Compound Light Microscope; Survey of Prokaryotes	N/A	N/A	In-class Quiz during laboratory; Week of Sept. 24
<b>Sept. 17</b> <b>(Makeup for Thursday sections TBA)</b>	3, 4, 26	Using a Compound Light Microscope; Protozoa	On-line; Sept. 15-16	N/A	
<b>Sept. 24</b>	17, 18	Principles of Population Genetics	On-line; Sept. 22-23	During laboratory; Week of Sept. 24 <b>(R1)</b>	N/A
<b>Oct. 1</b>	3, 26, 27	The Dissecting (Stereoscopic) Microscope; Slime Molds and Fungi	On-line; Sept. 29-30	N/A	In-class Quiz during laboratory; Week of Oct. 8
<b>Oct. 8</b>	6	Biologically Important Molecules: Carbohydrates, Proteins, Lipids and Nucleic Acids	On-line; Oct. 6-7	During laboratory; Week of Oct. 8 <b>(R2)</b>	N/A
<b>Oct. 15</b>	9	Diffusion and Osmosis: Passive Movement of Molecules in Biological Systems	On-line; Oct. 13-14	During the laboratory on Oct. 15 <b>(R3)</b>	N/A

<b>Week of</b>	<b>Exercise</b>	<b>Topic</b>	<b>Pre-laboratory Assessment (Connect)</b>	<b>Laboratory Report</b>	<b>Quiz</b>
<b>Oct. 22</b>	9, 10	Membrane Permeability; Hemolysis of Blood; Plasmolysis and Turgidity of Plant Cells	On-line; Oct. 20-21	During laboratory; Week of Oct. 22 (R4)	N/A
<b>Oct. 29</b>	11 and Handout	Enzymes: Factors Affecting the Rate of Activity	On-line; Oct. 27-28	During laboratory; Week of Oct. 29 (R5)	N/A
<b>Nov. 5</b>	12	Respirations: Aerobic and Anaerobic Oxidation of Organic Molecules	On-line; Nov. 3-4	During laboratory; Week of Nov. 5 (R6)	N/A
<b>Nov. 12</b>	13	Photosynthesis: Pigment Separation and Starch Production	On-line; Nov. 10-11	N/A	In-class Quiz during laboratory; Week of Nov. 19
<b>Nov. 19 (Makeup for Wednesday and Thursday sections TBA)</b>	14, 15	Mitosis and Meiosis	On-line; Nov. 17-18	N/A	In-class Quiz during laboratory; Week of Nov. 26
<b>Nov. 26</b>	17	Genetics: The Principles of Mendel	On-line; Nov. 24-25	During laboratory; Week of Nov. 26 (R7)	N/A