

**Summer 2018: BIOL 121 Biological Concepts Lab  
Cells, Metabolism, and Genetics  
Syllabus**

**Course information:**

**Location:** Snell Hall (SH) 2102; Main Campus

**CRN:** 00245

**Time:** MTWRF 10:00 am – 12:00 pm

**Dates:** 5/14/18 – 6/01/18

**Instructor Information:**

**Contact Information:** Ms. Kathryn Laslie, M.S.

[Kathryn.laslie864@topper.wku.edu](mailto:Kathryn.laslie864@topper.wku.edu)

**Office Location:** SH 2109; office hours by appointment only.

Biology 121 is an introductory laboratory that emphasizes the experimental aspects of cellular organization and processes, metabolism, DNA structure and replication, and Mendelian genetics. This course helps fulfill the Colonnade requirement (Explorations: Natural & Physical Sciences). It is designed to help students attain an understanding of the scientific method and knowledge of natural science and its relevance in our lives.

**Course Objectives:** Upon the completion of this course, you should be able to:

- Explain the process of scientific inquiry and the importance of experimental controls
- Demonstrate the proficient use of common laboratory equipment
- Perform common laboratory techniques; dictate the limitations of those techniques, and explain their significance and uses
- Record, represent, analyze, and interpret experimental data, and draw appropriate conclusions
- Demonstrate an understanding of the characteristics of living organisms (chemical composition, cellular structure, cellular division, genetics, and metabolism).

**Textbook & materials information:** The laboratory manual (*Biological Concepts – Spring 2018 OR Summer 2018*) can be purchased at the WKU Store (DSU; 270.745.2466). **This manual is REQUIRED and NECESSARY.**

Materials needed: MANUAL, goggles (for purchase in WKU Store or WKU Chemistry Department), calculator (any), and closed-toe shoes.

**Use of Blackboard & WKU Email**

This class requires the use of Blackboard (Blackboard.wku.edu). All assignments, quizzes, announcements, and grades will be posted here. Check Blackboard daily for important announcements.

All correspondence will be conducted through Blackboard and your WKU (topper.wku.edu) email. Professional language is expected for all email communications. Please send all emails with “BIOL 121” in the subject line.

**Attendance**

**Attendance for each lab is mandatory.**

- *\*\*\*\*This is especially important during summer term. A single day is the equivalent of an entire week's worth of work. It is imperative to stay on track.*
- If university-excused absence is provided, student may schedule accommodations with instructor
- If absent, students are still responsible for missed material on assignments and exams
- No grades will be “dropped” at the end. A zero will remain a zero.

## Grading

**Grades:** 100 – 90% (A); 89 – 80% (B); 79 – 70% (C); 69 – 60% (D); 59 – 0% (F).

**TOTAL POINTS: 550**

Assignment	#	Points	Total Points	% grade	Quick Notes
Exam	2	100	200	36.4	Exams include practical and standard (written) portion. All materials will be provided.
Homework	8	20	160	29.1	Must be submitted to Blackboard before the class period in which it is due (see below).
Peer Review	1	25	25	4.5	Review of peer performance. Will be used to calculate their grades and yours.
Participation	13	5	65	11.8	Attendance includes being on time with appropriate materials, participating in lab activities, & respectful conduct.
Pre-lab Quizzes	10	10	100	18.2	Online quiz submitted through Blackboard BEFORE each lab. Requires preparation before each lab.

### Pre-lab Quizzes

Each lab, you are expected to come in prepared. All quizzes will be available on Blackboard, where you will be required to read the material to be covered BEFORE coming to lab. All quizzes will be due at the start of class. For example, BEFORE you attend Lab 8: Cellular Respiration, you will have to a) read the manual and b) take the Lab 8 quiz on Blackboard.

- 10 quizzes, 10 questions each
- 11 minutes to complete, will auto-submit
- Due at the start of class each
- Study the material that you will complete that day.

### Homework & Other Assignments

All assignments will be submitted through Blackboard. **Late or incomplete assignments WILL NOT BE ACCEPTED.** Technology malfunctions are NOT a valid excuse and will not be accepted.

- Professional language (no txt spk pls) and full sentences are expected on all assignments. Points will be taken off for sub-par work.

In the *rare event* that you experience trouble with Blackboard, screenshot the issue and email it to the instructor and contact the WKU IT department (270.745.7000).

### Participation

Will be awarded each lab for 1) attendance; 2) punctuality; 3) preparedness; 4) participation in activities; and 5) professionalism.

- 13 weeks x 5 points = 65 points
- Exit slips (short questions) will be taken up at the end of each class as proof of attendance.

### Exams

Exams will be given in class at the normal time and location. There will be a 1) practical portion that asks you to demonstrate skills learned in lab and a 2) standardized portion that asks you to demonstrate understanding and application of concepts.

- 2 x 100 points = 200 points total
- Multiple choice, short answer, and open response
- Practical and standardized portions

## Schedule

Please note: This schedule is subject to change. Check Blackboard daily for updates.

Date	Lab	Due BEFORE class	Materials
M 5/14	<b>Introduction: safety, metric system</b>		<b>Manual</b> <ul style="list-style-type: none"><li>• pencil</li><li>• Goggles</li><li>• Calculator</li><li>• closed-toe shoes</li></ul>
T 5/15	<b>1:</b> Graphing & Data analysis	Quiz 1 Homework 1: Career Planning	
W 5/16	<b>2:</b> Biological Molecules I	Quiz 2 Homework 2: Metric System	
R 5/17	<b>3:</b> Biological Molecules II	Quiz 3 Homework 3: Graphing/Analysis	
F 5/18	<b>4:</b> Biological Membranes / Osmosis	Quiz 4 Homework 4: Biological Molecules	
M 5/21	<b>5:</b> Properties of Enzymes	Quiz 5 Homework 5: Osmosis & Diffusion	
T 5/22	<b>Midterm (labs 1-5)</b>		
W 5/23	<b>6:</b> Cellular Respiration	Quiz 6	
R 5/24	<b>7:</b> Photosynthesis	Quiz 7	
T 5/29	<b>8:</b> Cell Cycle/Mitosis	Quiz 8 Homework 6: Cellular Respiration & Photosynthesis	
W 5/30	<b>9:</b> Mendelian Genetics	Quiz 9 Homework 7: Mitosis and Meiosis	
R 5/31	<b>10 &amp; 11:</b> PCR & Gel Electrophoresis	Quiz 10 Homework 8: Chi-square	
F 6/1	<b>Final (labs 6-11)</b>		

## Student Accessibility

Students who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center (DSU 1074; 270.745.5004; sarc.connect@wku.edu). Please do not request accommodations directly from the instructor without a faculty notification letter (FNL) from the SARC.

## Academic Integrity and Student Conduct:

Students are required to do their own work at all times as outlined by the WKU Student Handbook. Cheating/academic dishonesty in any form (plagiarism, altering or stealing exams, crib sheets, cell phone usage, etc.) will result in dismissal from the course with a failing (F) grade and a notification to the WKU Office of Student Conduct. Disruptive or disrespectful student behavior or speech will not be tolerated. Such conduct may include, but is not limited to:

1. Rude or disrespectful behavior
2. Unwarranted interruptions and/or failure to adhere to instructor directions
3. Vulgar and/or abusive language and behavior
4. Inappropriate questions or advances toward your instructor.

Any continuation of such conduct or actions will result in disciplinary action as specified in WKU Code of Conduct.

## Sexual Misconduct, Discrimination & Harassment:

WKU is committed to upholding the Title IX Sexual Misconduct/Assault Policy (#0.2070) and the Discrimination and Harassment Policy (#0.2040) that may be read in their entirety at [wku.edu](http://wku.edu). Under these policies, discrimination, harassment, and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment, and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson (270.745.5398), or Title IX investigators, Michael Crow (270.745.5429) or Joshua Hayes (270.745.5121).

Please note: WKU faculty members are “Responsible Employees” of the University and **MUST** report Title IX incidents to the WKU Title IX faculty members. If you would like to share your experiences with some degree of confidentiality, you may contact WKU’s Counseling and Testing Center (270.745.3159).

**The Learning Center:** The Learning Center (DSU 2141; 270.746.5065; [www.wku.edu/tlc](http://www.wku.edu/tlc)) provides free programs for all current WKU students. TLC offers CRLA certified, one-on-one tutoring in over 100 subjects by appointment or walk-in and hosts a branch of the English Department’s Writing Center. TLC also provides a quiet study area, spaces for peer tutoring, and a computer lab.

For more detailed information about WKU policies and student services, visit <https://wku.edu/syllabusinfo/index.php>