Preliminary Syllabus: BIOL114-750 (General Biology Lab - Online) Fall 2020

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Note: This is WKU's online biology lab class. **This course is delivered completely online**. As such you will be expected to thoroughly understand how to use your computer and the internet. If you intended to register for a traditional lab section or have problems accessing a computer, please drop this class. All class material will be accessed online through **Blackboard** (https://blackboard.wku.edu/). Log in using the instructions found on that page.

This class uses McGraw Hill Virtual Labs provided through McGraw Hill Connect. In order to have access to the labs you will be charged by the Western Kentucky University Bookstore. The charge will show up on your billing account by the Friday of the second week of classes

Your Blackboard calendar contains a schedule of due dates for all assignments. To find it, click your name at the top right corner of the window to open a tab, then click the calendar icon. The BIOL114 course site will become accessible the weekend before classes begin.

Course Description

A laboratory course correlated with BIOL 113 for non-science majors emphasizing the scientific process, biological concepts and biological organization. This course fulfills the Natural Sciences with Lab requirement of the Explorations Category of Colonnade. Students will gain the ability to:

1. Demonstrate and understand the methods of scientific inquiry in biology
2. Explain basic concepts and principals in biology
3. Apply scientific principles to interpret and make predictions in biology
4. Explain how scientific principles relate to issues of personal and/or public importance

Labs involve virtual exercises focused on collecting and analyzing data. **Online courses demand the same amount of time and effort from students as traditional courses**, but offer flexibility to distance learners and students with atypical schedules.

Learning Objectives

Upon completion of this course, students should be able to...

- think analytically about biological processes
- apply the steps of the scientific method in developing a procedure for answering a question
- gather, interpret, and draw meaningful conclusions from experimental data
- effectively communicate results and conclusions through scientific writing
- perform basic data analysis using a spreadsheet

Computer-based learning

It is **your responsibility** to have access to a functioning computer with a good internet connection. Computer labs are available at **many locations on campus** (https://www.wku.edu/its/labs/), however it is strongly recommended that online students have access to personal computers. **Computer malfunctions are not considered a valid excuse for missing assignments; completing assignments well in advance of the due date will prevent technical difficulties from negatively affecting your grade.** Save often and back up your work on an external flash drive.

This term we will be using McGraw-Hill's Virtual labs. Access information will be provided in a Blackboard announcement the weekend before classes begin.

Access to a **word processor, a spreadsheet program, and a PDF viewer** will be essential for completing assignments and viewing class materials. If you are a Google user and your personal computer does not have Microsoft Office, OpenOffice, or something similar, I recommend Google Docs. It's free, and its word processor and spreadsheet program are adequate for this course. **Adobe Reader** is a PDF viewer that is freely available for download.

Email Etiquette

Even though this class does not meet in a traditional classroom setting there are certain expectations as to how you interact with your instructor. Any email communication between you and the instructor should be written in a professional format (i.e. **NO** texting language). Please make sure your email has a subject line that includes the class title, a greeting, a body that includes your question or comment, and a closing salutation. Lastly, the instructor reserves the right to answer emails sent after 5:00 pm the next day; therefore if you have urgent questions that you need answered make sure to email them before 5:00 pm.

Tips for success

Observing closely, being thorough in your work, and taking notes will help you absorb material and **improve your performance on quizzes and exams**. One advantage to online over traditional courses is that you can review/repeat learning exercises until you feel confident you've mastered the material. You might prepare and maintain a physical notebook or an electronic folder into which you can back up your assignments and store your data and notes.

Need Help?

If you find any part of the course incomprehensible or need extra help, feel free to contact me: Paige Hiltner **(**paige.hiltner890@topper.wku.edu**)**. Be sure to contact me **BEFORE** the due date, exam date, etc. **Do not wait until the last minute to ask for help**. This course is designed to be flexible and accommodate different schedules; however I strongly recommend students treat it like a traditional course - set aside a block of time to complete weekly coursework in advance of the due date.

Additional Resources:

Tips for succeeding in online courses (https://www.wku.edu/online/srp/success.php)

Online Student Resource Portal (https://www.wku.edu/online/srp/)

Online Tutoring through The Learning Center (https://www.wku.edu/tlc/online_tutoring.php)

For help with Blackboard: Log in with your WKU NetID and password, then click the "IT Training" tab (at the top right) for access to video tutorials, a Blackboard student user training workshop, and other resources.

Grades

Grades will be determined based on the percentage earned out of total points possible from the weekly quizzes, homeworks, and the Mid-term and Final Exams. **Make-up work will not be accepted - instead, your lowest (1) lab, (1) homework, and (1) quiz grades will be dropped at the end of the course** (e.g. if 10 labs/HW/quizzes are assigned, only your highest 9 lab/HW/quiz scores will count toward your final grade). **Late work will be accepted for half credit for homework (up until the next Sunday following the Sunday due date, i.e. one week late). Late work will not be accepted for labs or quizzes.**

Quizzes will be available Monday (12:00 AM) through Wednesday (11:59 PM). The lab exercises are available Monday through Sunday each week. That means that each week you have three days to take the quiz and a week to do the lab exercises and submit the homework assignment. **Waiting until the last day to do the exercise or quiz and then providing some excuse why you could not complete it is not acceptable.**

Your grades will be updated regularly on Blackboard under "My Grades" (under the same tab as the calendar). Check your grades often, so you have an idea of where you stand! Lab and quiz grades will be entered automatically after you complete them. I will post homework grades as quickly as possible, but since I must grade and enter them manually, grades may not be visible until the week after the assignment was submitted.

Grading scheme:

LearnSmart Labs:	**10 @ 15 pts. each**	**=**	**150 pts.**
Homework:	**10 @ 20 pts. each**	**=**	**200 pts.**
Quizzes:	**10 @ 5 pts. each**	**=**	**50 pts.**
Mid-term Exam:			**50 pts.**
Final Exam:			**50 pts.**

Total points possible (before dropping lowest lab, homework, and quiz): 500 pts.

To calculate your cumulative grade at any point in the semester:
(sum of points earned to date / sum of points possible to date) * 100 = earned percentage grade to date
> 90% = **A**, 80-89% = **B**, 70-79% = **C**, 60-69% = **D**, below 60% = **F**

Virtual Labs

This course will be guided by the McGraw Hill Virtual Labs online modules (https://www.mheducation.com/highered/connect.html). You will complete 10 labs composed of 1-2 modules (worth 15 points each). To receive full credit, be sure to **complete all sections of each module**. One or two modules will be assigned each week in order to cover a sufficient amount of material. A weekly Blackboard announcement will include instructions and tips for each week's lab.

The questions throughout each module will check your understanding of core concepts before the material is actually introduced. Your responses will allow your learning experience to be tailored to your level of knowledge of the material. The labs are meant to facilitate your learning, not evaluate your knowledge, and will be graded based on completion. Carefully consider your responses, and follow up on incorrect answers by reviewing the supplemental material and taking notes as you go.

For help using the LearnSmart labs, refer to the FAQ and video tutorials at the top right of the page.

Homework Assignments

Weekly homework assignments (worth 20 points) will typically be a written summary of the main points of the previous week's lab(s) or 1-2 short answer questions. Guidelines for each assignment will be posted each week on Blackboard. **Copying and submitting the lab report from the LearnSmart labs will not earn any points on assignments (i.e. result in a "0" for that assignment).**

All homework assignments are to be submitted via Blackboard - Please do not email them to me! Using the drop boxes for each assignment under the homework tab in the Blackboard course site attach a file containing that week's homework, then press "submit". You can edit your submission any time before the due date. **I recommend keeping a backup of all coursework, including homework, on your personal computer.**

Quizzes

Each week, a short quiz (worth 5 points) over the previous week's material will be available Monday (12:01 AM) through Wednesday (11:59 PM). Quizzes cannot be made up. **Refer to your calendar on Blackboard for an up to date schedule of due dates for all assignments.** Quizzes must be completed independently, and are "closed book"; no notes, study guides or web pages may be used during quizzes and exams.

Exams

A 50-point Midterm and a 50-point Final Exam will be given during the course. I will provide a study guide for you to review (not a graded assignment) the week before each exam becomes available. **Exams will be proctored and must be taken in person at an approved testing center.** You will schedule your exams in advance through the **Distance Learning Testing Center** (https://www.wku.edu/testing/). Success on quizzes is generally predictive of success on exams!

Additional information

Family Educational Rights and Privacy Act: Due to the Family Educational Rights and Privacy Act (**FERPA,** https://www.wku.edu/registrar/ferpa/ferpa_students.php), if you are 18 years old or older, I cannot discuss your grades, etc. with your parents or anyone else.

Academic Misconduct: Dishonesty or plagiarism on quizzes, exams, or written assignments (see WKU's plagiarism statement below) may result in a failing grade for the class. **All quizzes and assignments must be completed independently. Remember that all quizzes and exams are "closed book", i.e. no notes, study guides or web pages may be used during quizzes and exams.**

→ **Important: Plagiarism of any kind (including copying and pasting from Wikipedia, use of outside sources without correct attribution, etc.) will result in *at least* a zero for the assignment, but may result in more severe consequences. This also includes using any images, graphs, tables, or other material directly from the labs themselves. All students are required to complete a plagiarism tutorial upon enrolling at WKU. If you are not sure what is meant by "plagiarism", you may want to revisit the tutorial. WKU's definition of plagiarism is as follows:**

WKU's Plagiarism Definition: *"To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. Once must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism."*

In addition with the above material stated, if any act of plagiarism occurs, you the student will be penalized **10 points** off your final grade. If this ends up lowering your overall score below a letter grade, no rounding of grades will occur. This is in addition to getting a zero on the assignment where plagiarizing took place.

Withdrawals and Audits: All changes to your course schedule or registration status can be made through **TopNet**. If you wish to audit or withdraw from the course, be aware that **it is your responsibility to drop the course before the date designated by the university**. For Fall 2020, August 31st is the last day to drop a class without a grade and November 2nd is the last day to drop a class and receive a "W" instead of an "F".

→ **If a student fails to either log in to Blackboard or submit assignments by the end of the first two weeks of lab, he/she may be dropped from the course due to non-attendance.** However, it is not my responsibility/obligation to drop non-attending students from the course; university policy states, "Students who, without previous arrangement with the instructor or department, fail to attend the first two class meetings of a course meeting multiple times per week or the first meeting of a class that meets one time per week MAY be dropped from the course; however, students are responsible for officially dropping any course for which they have enrolled." **Failure due to non-attendance may have consequences for financial aid status.**

Disabilities: "In compliance with University policy, students with disabilities who require academic

and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, Room 1074. The SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center."

BIOL 114: Tentative Assignment Schedule

(Note: this schedule is subject to change. Refer to your Blackboard Calendar for an updated schedule of assignment due dates)

Week **(beginning Monday)**	**Homework** See Blackboard weekly (available Monday 12:01 AM, due by Sunday 11:59 PM)	**Quiz** (available Monday 12:01 AM - Wednesday 11:59 PM)	**Lab Module(s)** (available Monday 12:01 AM, due by Sunday 11:59 PM)
Week 1 **(August 24)**	Syllabus assignment: **required** (0 pts.)		**Lab 1** – *Introduction to Virtual Labs & Chemical Composition of Cells*
Week 2 **(August 31)**	**HW 1:** Controls and Variables & Graphing Data worksheets	**Quiz 1:** Controls and Variables	**Lab 2** - *Scientific Method & Metric Measurements*
Week 3 **(September 7)**	**HW 2:** Pillbug Lab Report	**Quiz 2:** Scientific Method	**Lab 3** - *Diffusion*
Week 4 **(September 14)**	**HW 3:** Diffusion Lab Report	**Quiz 3:** Diffusion	**Lab 4** – *Osmosis*
Week 5 **(September 21)**	**HW 4:** Tonicity Lab Report	**Quiz 4:** Cell Anatomy & Osmosis	**Lab 5** – How *Enzymes Function*
Week 6 **(September 28)**	**HW 5:** Enzyme Lab Report	**Quiz 5:** Enzymes	
Week 7 **(October 5)**	Fall Break		

	(No Work Assigned)		
Week 8 **(October 12)**	**Midterm Exam** **(covers labs 1-5)**		
Week 9 **(October 19)**			**Lab 6** – *Cellular Respiration*
Week 10 **(October 26)**	**HW 6:** Metabolism Lab Report	**Quiz 6:** Metabolism	**Lab 7** – *Mitosis and Meiosis*
Week 11 **(November 2)**	**HW 7:** Case Study: Why Sex Is Good	**Quiz 7:** Cell Reproduction	**Lab 8** – *Human Genetics & Mendelian Genetics*
Week 12 **(November 9)**	**HW 8:** Case Study: Malaria and Sickle Cell Anemia	**Quiz 8:** Mendelian Genetics	**Lab 9** – *Sampling Ecosystems*
Week 13 **(November 16)**	**HW 9:** Ecology - Symbioses	**Quiz 9:** Ecology	**Lab 10** – Evidences of *Evolution & Natural Selection*
Week 14 **(November 23)**	**HW 10:** Evolution & Natural Selection	**Quiz 10:** Evolution & Natural Selection	**HW 11:** **Extra Credit Opportunity**
Week 15 **(November 30)**	**Final Exam** **(covers labs 6-10)**		