

# BIO 120- Biological Concepts : Cells, Metabolism, and Genetics

## Syllabus Winter 2016

**Biol 120 Homepage:** <http://blackboard.wku.edu> - Login required

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**Required Textbook:** Raven et al. 10th edition ISBN 9780073383071 (get the e-book from bookstore, also familiarize yourself with the e-text policy provided later in this syllabus)

**Required Student Access Kit:** Comes with e-text as a bundle

**Required Classroom Response System:** None.

**Class Hours:** None. Completely on-line.

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### GENERAL EDUCATION COURSE CONTENT AND GOALS:

This course fulfills the D.1. (Science /Mathematics) general education requirement. It will help you attain this general education goal and its corresponding objectives: An understanding of the scientific method and knowledge of natural science and its relevance in our lives, specifically to help students:

- ☐ develop a conceptual framework for modern biology, and
- ☐ to gain an appreciation of science as a process

**Course content and goals:** This course is designed for Biology and science majors and will emphasize: cellular organization and processes, metabolism, DNA structure and replication, and Mendelian and population genetics. This course requires that Biol 121 be taken as a co-requisite. After a student completes this course they will have a foundational knowledge in the fields of biochemistry, cell biology, molecular biology and genetics. Specifically, they will be able to:

- ☐ Recognize and describe the structure and function of biological molecules
- ☐ Outline and compare cellular energetics, cellular metabolism, and photosynthesis.
- ☐ Recognize and describe the structure and function of prokaryotic and eukaryotic cells, as whole entities and in terms of their subcellular organization and processes.
- ☐ Describe and explain the synthesis, structure, and function of nucleic acids and proteins in prokaryotes and eukaryotes.
- ☐ Understand and apply the principles of inheritance from molecular mechanisms to population consequences (diversity).
- ☐ Appraise and evaluate biological knowledge in an ethical and social context

## **COURSE OVERVIEW:**

This online winter term course covers all the same basic material and uses the same textbook that would be found in a regular semester Bio 120 course, only it does so in three weeks. As the lab for this course (Bio 121) is a co-requirement, you will be required to take Bio 121 in the Spring term if you have not already done so.

All of the assignments and exams will be done online. To keep up with the material, students will need to read approximately one chapter of the textbook (about 15-20 pages) per day (see suggested reading schedule in Blackboard). PowerPoint lecture notes will be provided as an outline of the most important points and to help you in your reading and studying. Assignments will be due almost daily and exams are due in blocks. That is, tests are due two at a time. This is to allow some flexibility in student's schedules. Assignments and exams can be done any time before their due dates and it is recommended that they are done early so that assignments/exams are not accidentally missed.

## **SCHEDULE:**

A suggested reading schedule and the due dates for assignments and tests have been placed in the "Course Information" folder on our Blackboard course website.

## **COURSE POLICIES:**

### **E-Textbook: (READ BEFORE PURCHASING)**

The Biology Department at WKU has worked over the past year to develop a new model for textbook adoption. In order to save you some money, maximize your effective use of your textbook, increase learning and evaluate the best ways of teaching you difficult topics, we've entered into a partnership with McGraw-Hill publishers. By enrolling in this course, you agree to purchase the digital materials associated with this course. These materials include 12-month or 24-month (depending on the course) access to Connect, LearnSmart or LabSmart where appropriate, a downloadable e-copy of the textbook which is yours to keep, and the option to print a gray-scale copy of your textbook at greatly reduced cost. The cost per text, with all online materials, is ~\$75, about 35% to 50% the cost of purchasing a new textbook, even before purchasing online materials. If you want a printed copy, that's about \$25, but you must order that through the WKU Store during the first week of class. In order to make these savings available to you, WKU must institutionalize the purchasing process. As a result, about two weeks into the semester, you will be billed the cost of the materials for the course. The nice thing about this is that you will have access to all the course materials from day one, without doing a thing! If you choose to drop the course during the regular add-drop period, you won't be charged for the book. You should note that for this course, you WILL be charged for the digital materials. Do NOT buy a copy of the book from online or local vendors. ONLY the digital format will be used in this course. If you are enrolling in a two-semester course sequence (Biol 131-231 or Biol 120-122), you have full access to the digital materials online for 24 months, plenty of time to take both courses and even take a semester off in between without paying twice for the materials. We anticipate that this approach to teaching will result in better learning and a more interesting classroom experience for you, and less stress on your spine!

**EXAM FORMAT:** The lecture exams will be done at your convenience with two due dates (Exams I & II are due Dec. 13 and Exams III & IV are due Dec. 22). **Exams** may include true/false, multiple choice, matching, diagrams, and other types of questions. The final exam is comprehensive. It covers all the material in BIOL 120 and **all** students will be required to take the final exam. Make-up exams will be given only for approved University excuses for the duration of the week of the exam (illness with a doctor's written excuse or death of a close relative) and will be administered during finals week. You must give Dr. Smith your excuse note within a week of missing the exam or other assignment.

The first three exams will have ~40 questions and the final exam will have ~80 questions. You will be given 1 hour to take each of the exams except the final (2 hours). You will be given a score as soon as you complete each exam and you will only have a single opportunity to take the exam although you can schedule the time that you take it any time that the test is open.

**GRADING:** There will be a total of approximately 840 points possible in this course, consisting of some variation of.....

- ☐ 240 pts. - Twelve 20-point On-line Assignments
- ☐ 300 pts. - Three 100-point Blackboard Exams
- ☐ 200 pts. - One 200-point Cumulative Final Exam (100 pts. material SINCE Exam III + 100 pts. on Exam I-III material)
- ☐ **Total = ~740 pts.**

Final letter grades will be determined based on the following percentage scale. To determine your final grade (%) use the formula: (your raw score/840) X 100

**Grading Scale :**

90-100%	<b>A</b>	Outstanding
80-89%	<b>B</b>	Above average
70-79%	<b>C</b>	Average
60-69%	<b>D</b>	Below Average
Below 60%	<b>F</b>	Failing

**Withdrawal by the deadline will get you a grade of "W"**

**FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT:**

Due to the Family Educational Rights and Privacy Act (**FERPA** ), if you are 18 years old or older, I cannot discuss your grades, etc. with your parents.

**ACADEMIC INTEGRITY:** Students are expected to do their own work throughout this course and demonstrate academic integrity. Academic dishonesty in the form of cheating or plagiarism will not be tolerated. Please refer to the WKU Student handbook for policies and definitions regarding academic integrity at:

<http://www.wku.edu/Dept/Support/StuAffairs/StuLife/handbook/academicOffenses.htm>

**ACADEMIC MISCONDUCT:** Dishonesty on quizzes, exams, or written assignments (see WKU's plagiarism statement below) will result in a failing grade for the class. Cheating (completing an assignment for someone else, allowing someone else to copy your assignment, copying and pasting from internet sources or elsewhere when you have not been instructed that

this is acceptable, etc.) on online assignments will be tracked by computer. Cheating will not be tolerated.

**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. One 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."

**WITHDRAWALS AND AUDITS:** If you wish to audit or withdraw from the course you should do so by the dates mandated by the University. Be sure you are aware of these dates because credit for the course will not be changed to an audit after the university designated time. You also cannot drop the class or change to Audit or Withdraw after the designated time. Be aware that **IT IS YOUR RESPONSIBILITY TO DROP THE CLASS**. Do not assume that I will do this for you. 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."

**Ceasing to attend class does not activate the drop, withdrawal, or incomplete grade processes.** You must submit the appropriate forms for each by the published deadlines to end your enrollment in this class. Failure to complete the appropriate forms may result in a failing grade for this course.

**DISABILITY ACCOMMODATIONS:** "Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services, Room 101, [Garrett Conference Center](#). The OFSDS telephone number is (270) 745-5004 V/TDD. Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services."

Note that if you require accommodations, you may be required to take exams at another location. I typically refer students to the Office of Correspondence Study, 105 Garrett Conference Center (745-4158) because this office is set up to make accommodations as specified by the Office for Student Disability Services. You will need to make arrangements with me at the beginning of the semester to take your exams at a location, such as the Office of Correspondence Study, in order to receive your accommodations. If at any time during the semester you want to change your testing arrangements, you must see me at least 3 days prior to the upcoming exam date. If you need extra time on assignments, you must make arrangements with me PRIOR TO THE DUE DATE of the assignment.

**This syllabus is subject to change at my discretion but I will notify you of any changes made.**