

General Microbiology- Biol 207

Syllabus--Spring 2024

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General Education Course Content and Learning Outcomes: Biol-207 fulfills the D.1. (Science/Mathematics) general education requirement. In addition, this course is a requirement for some degree programs such as nursing, pre-pharmacy, pre-veterinary medicine, and others. Please check your degree program and with your advisor to make certain that this course fulfills your degree requirements. This course will help you attain the following general education goal and its corresponding outcomes:

“Use the scientific perspective to gain basic understanding of the natural and physical world and the relevance of science issues of personal and public importance”

More specifically, successful completion of this course provides you skills to

- *Demonstrate the understanding of the methods of scientific inquiry*
- *Explain fundamental principles or concept of microbiology*
- *Gain an understanding of bacteria, viruses and other microbes and their interaction with human lives*
- *Apply scientific principles to interpret and make predictions in the areas of human health and environment*
- *Explain how scientific principles relate to issues of personal and/or public importance*

Required:

- **E-text: Microbiology Fundamentals: A clinical approach by Cowan (with Bunn and Herzog).**
- **READ BEFORE PURCHASING TEXTBOOK**

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 have 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 full access to Connect, LearnSmart practice module and 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. 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 will not 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.**

NB: You will need to register with McGRAW HILL to gain an access to the digital package CONNECT – as shown on the last pages: 5-6

TENTATIVE TOPICS (Dates as announced in the class)

| Week | Chapter title | Chapter Reading/Posted PPT | Assignments |
|-------------|--|------------------------------------|---------------------|
| Week 1 | Intro to Microbes-----Building Blocks | Chapter 1; PPT presentation 1 | SmartBook Assign 1 |
| Week 2 | Prokaryotic Structure | Chapter 3 PPT presentation 2 | SmartBook Assign 2 |
| Week 3 | Viral Structure-----Life Cycles | Chapter 5; PPT presentation 3 | SmartBook Assign 3 |
| Week 4 | Microbial Nutrition-----Growth | Chapter 6; PPT presentation 4 | SmartBook Assign 4 |
| Week 5 | Microbial Metabolism | Chapter 7; PPT presentation 5 | SmartBook Assign 5 |
| Week 6 | Microbial Genetics-----Genetic Engineering | Chapter 8; PPT presentation 6 | SmartBook Assign 6 |
| Week 7 | Continued: Microbial Genetics----Genetic Engineering | Chapter 8; PPT presentation 6 | SmartBook Assign 7 |
| Week 8 | Physical and Chemical Control of Microbes | Chapter 9; PPT presentation 7 | SmartBook Assign 8 |
| Week 9 | Interaction-----Microbes and Humans | Chapter 11; PPT presentation 8 | SmartBook Assign 9 |
| Week 10 | Host Defenses | Chapter 12 PPT presentation 9 | SmartBook Assign 10 |
| Week 11 | Infectious Diseases-----Respiratory System | Chapter 19; PPT presentation 10 | SmartBook Assign 11 |
| Week 12 | Gastrointestinal Diseases | Chapter 20; PPT presentation 11 | SmartBook Assign 12 |
| Week 13 | Sexually Transmitted Diseases | Chapter 21 PPT presentation 12 | SmartBook Assign 13 |

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|---------|---|---|---------------------|
| Week 14 | Infectious Diseases- Miscellaneous topics | Selected conditions from Chapters 16-18 | SmartBook Assign 14 |
| Week 15 | Infectious Diseases- Miscellaneous topics | Selected conditions from Chapters 16-18 | |

EXAM Tentative SCHEDULES & GRADING POLICY

[Exact dates of exams will be announced with the start of the semester]

| | | |
|-----------------------------------|-------|-----|
| EXAM-1 (5 th . Week) | ----- | 100 |
| EXAM-2 (10 th . Week) | ----- | 100 |
| EXAM-3 (16 th . Week) | ----- | 100 |
| SmartBook Pre Lecture Assignments | ----- | 100 |

Grading scale: A= 90%; B=80%; C=70%; D=60%

Total 400 Points

(DISTRIBUTION OF GRADE POINTS IS TENTATIVE AND CAN CHANGE; FOLLOW ANNOUNCEMENTS)

WHAT ARE YOU TESTED FOR?? This course will be delivered in the manner students will be able to achieve the cognitive competencies at the level of Remembering, Understanding and Applying the learned concept in a thorough manner- the three basic categories of Bloom’s Taxonomy. Multiple-choice exams will be primarily designed to test your learning at those levels. However, this class aims for higher learning goals as well; for example, students are expected to demonstrate some mastery of the topic at the level of analysis and evaluation.

Therefore, this class will spend at least a quarter of the class time in active learning exercises such as group discussion, short essay or one-sentence elaboration, debate, engaging in Socratic questions etc. Current research on active learning practices, such as above, shows high-level of student interest and engagement in the topic and consequently high rates of success in learning and fulfilling an individual’s career goals.

EXAM POLICY

You must check the Blackboard announcement regularly for all tests or exams.

Exams: Three exams will be given electronically during class and will cover the information from class. You will take an electronic version of the exam on your personal computer. If you do not have a laptop and do not have one available, you can check one out from Mass Media Computer Lab. You are required to download the Respondus Lock-down browser from WKU onto your computer. This browser will prohibit you from exiting the exam. You will also be required to sign in and out of the exam and show a picture ID. Since each person’s exam/quiz is unique (questions pulled from a large question bank) you will not be able to view the actual questions that you missed after the assessments. You should be able to look at your course materials and determine areas that confused you on the tests. If there is content you do not understand or are having difficulty with, please ask for help or clarification. We want you to be successful.

Exam Rules:

1. All exams will be given in the Respondus Lock-down browser
2. All other tabs, links, browsers, apps, etc. must be closed during the exam. Accessing anything other than the exam is CHEATING and will be treated as such. Penalties for cheating include but are not limited to a ‘0’ on the test, a written formal letter in your electronic record, a “0” for the course. It is not worth it. Don’t cheat.

Makeup Exams are only given in **EXTREME** circumstances for documented university excused absences when permission is given by me in advance! You will not be allowed to make up an exam without documentation. Examples of circumstances where make up exams may be allowed include:

- Documented hospitalization
- Attending a university sporting event where you are a player
- Attending a university academic event such as a conference/debate etc. where you are a presenter or performer

WHAT ARE PRE-LECTURE SmartBook ASSIGNMENTS?? SmartBook is the most widely used adaptive **learning resource** that is designed to maximize productivity and efficiency in learning. This suite spans the entire learning process – from course prep to concept mastery – and it creates high impact study sessions that focus students on the concepts that they need to learn. It is part of the McGraw Hill digital package that Biology Department has introduced for introductory courses.

SmartBook Pre Lecture Assignments will be available to students under Blackboard Tests/Quizzes browser and students are expected to complete an assignment before or when a related chapter is being discussed in the class so that students may be familiar with the terms, definitions and important concepts in advance of reading slides or chapters. As soon as you open this assignment, you will see a pop up coming with varieties of questions. Get responding the questions, it will show your right or wrong attempts. It will teach you like a classroom teacher asking questions and then giving you the correct answers at the end. I believe this system is very useful for learning. You can practice until you develop mastery over the materials and score full points. There will be multiple SmartBook assignments (14 listed above which may vary). **You must complete these practice assignments within the non-extendable deadline (appearing below the assignment under Tests/Quizzes browser).**

How to study and prepare for tests

1. Reading PPT slides: PPT presentations made on each covered chapter begin with Learning Goals for that specific chapter and then describe a subject with possible illustrations. These slides set a nice background for you to focus on learning, avoiding unnecessary details of the book chapter. If you read these presentations in conjunction with the description in a book chapter (for details), you will have better learning and comprehension.
2. Each PPT presentation contains a number of model questions that you should practice.
3. Completion of prior SmartBook practices will be immensely helpful for the study and preparation of exams.
4. Each chapter of your digital book ends with a number of multiple choice and critical thinking questions that you should practice for confidence building before the exam.
5. Attending each class and participating in class activities will be immensely beneficial in understanding the concept

Blackboard familiarity: Students are required to be familiar with blackboard functions as course materials and the tests/assignments will be administered through Blackboard. Visit <http://www.wku.edu/it/blackboard/> for help.

Expectations & Academic integrity

You are expected to read book chapters and PPT slides every day. I would recommend you to do SmartBook assignments before a chapter reading. It will be then easier for you to understand Chapter/PPT materials. Chapters are voluminous, therefore, PPT slides will guide you what to focus. Materials covered on PPT slides will be mainly included in tests. You are expected to pay attention to the lecture and to take

notes over the topics covered in class. You are encouraged to work with other students as you study for this course; however, at no time will excess talking during the class be permitted. Dishonesty/use of any unfair means in exams or any misconduct in the class will inevitably result in a failing grade. Use of cell phones, pagers, pdas, etc. in class will be considered acts of misconduct. *Students are strongly discouraged to enter late in the class. Leaving the class before the end of the session is not allowed.*

Withdrawals: There are deadlines for the withdrawal. To withdraw from the course, adhere to the *Tuition and Fee Refund Policy of WKU*. You may not drop or withdraw from the class after the designated time. It is YOUR responsibility to drop the class. Do NOT assume that I will do this for you.

Disabilities

“Students with disabilities who require accommodations (academic adjustments and/or auxiliary aid or services) for this course must contact the Office for Student Disability Services, Room 445, Potter Hall. 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”

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU’s Title IX Sexual Misconduct/Assault Policy (#0.2070) at

<https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and

How to Register for McGraw Hill

Connect:

1. **CLICK TOOLS on BLACKBOARD COURSE SITE MENU FOR McGraw Hills Higher Education link. THIS LINK TAKES YOU TO "GO TO MY CONNECT SECTION- Biol-207: Spring 2024**
2. **Click on REGISTER NOW**
 - o Student registration tutorials are available if you need help.
3. **Enter your email address**
4. Your E. Mail is your access code
5. **Next, you will need to fill out the registration form.**
 - o Click on “Go To Connect Now” to complete your registration and continue to your instructor’s course.
6. **You are now at your instructor’s course.**
 - o This is where you can access your assignments and study resources.
7. **To Return to Connect**
 - o Go to the web address provided to you by your instructor. Again, you’ll want to bookmark it to save time.
 - o Once on the Connect homepage, enter your email address and password.

Please visit the [Student Registration Tutorial](#) for additional registration information. If you need help or have any questions about Connect, you can visit our Customer Experience support center: [Visit our 24-hour online support site.](#)

- Call us at 800-331-5094
 - Sunday: 6pm to 11pm (Central Time)
 - Monday – Thursday: 8am to 11pm (Central Time)
 - Friday: 8am to 6pm (Central Time)
- Online Tutorials: <http://www.connectstudentsuccess.com>

COURSE NAVIGATION: WHERE TO GET WHAT

1) READ SYLLABUS TWICE FOR COURSE TOPICS AND EXAM POLICY

2) READ COURSE SCHEDULES FOR COURSE TIME LINE

3) FIND PPT PRESENTATIONS UNDER Blackboard COURSE CONTENT

4) CLICK TESTS & QUIZZES FOR ASSIGNMENTS & EXAMS

5) CHECK DUE DATES OR ANNOUNCEMENTS FOR ASSIGNMENTS OR EXAMS