

General Microbiology
BIOL 207
Summer 2019 Course Information and Syllabus

Instructor	Dr. Rodney King
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Office Hours	By appointment
Homepage	https://www.wku.edu/biology/staff/index.php?memberid=766
Lecture Hours	MTWHF 10:30-12:10
Lecture	Snell Hall B102
Prerequisites	None
Required Text	Required E-Text: Microbiology Fundamentals: A Clinical Approach by Cowan (with Bunn and Herzog. ISBN: 978-0-07-340235-2

COURSE OVERVIEW:

Biol 207 is an introduction to Microbiology. The course is for non-biology majors. At the end of this course, students will have a greater appreciation and understanding of microorganisms (particularly prokaryotes) and the many fascinating roles that they play in the biosphere. Students will develop an understanding of how our knowledge of prokaryotes is applied to; (1) the diagnosis, prevention and treatment of diseases in animals and plants; (2) the food, biotechnology and pharmacy industries; and (3) our understanding of microbial processes. Some of the most important discoveries and advancements in human history have been made possible through our understanding of the activities of nature's unseen majority.

This course fulfills the D.1. (Science/Mathematics) general education requirement (3 hours of the Colonnade Program – Part II. Explorations: Knowledge of Human Cultures and the Physical and Natural World – Natural Sciences and achieves Learning Outcome 1c.

General Course Objectives:

1. To provide basic information on scientific process and method.
2. To develop knowledge of natural science and its relevance in our lives.
3. To identify, label, define and explain microbial structures, life cycles and processes
4. To understand beneficial and harmful human-microbe interactions
5. To differentiate between viruses, bacteria and other microorganisms
6. To understand technologies used to identify and classify microorganisms
7. To understand the growth and control of microorganisms.
8. To understand basic bacterial genetics and its relationship to antibiotic resistance.

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'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 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. 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. 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! You can access the website through Blackboard. Go to the class' page and select Course Tools on the left side. There will be a link to McGraw Hill in that list. Click on that link. This will take you to a page with a link that says, "Go To My Connect Section." This takes you to the page for this course. If you have not registered, you will be prompted to do so at this point. Please make sure you do not register for a guest account. If you do, this will reduce the time period for your access.

LearnSmart Assignments:

For each chapter there is a LearnSmart assignment that is to be completed before covering the chapter in class. There will be specific windows of time when these assignments will be available so please pay attention to those dates. If a LearnSmart is not completed, it cannot be made up. These assignments will also be a valuable tool in studying for the exams. You are expected log in and complete the LearnSmart

assignments by the established deadlines. No credit will be awarded for work submitted after the deadline. These items are scored automatically and totaled into your Blackboard grade book. The LearnSmart assignments will constitute 10% of your final grade.

EMAIL:

The instructor may need to contact the student or the entire class outside the classroom time, such as sending each class lecture slides. The email address assigned by the university will be used for this purpose.

GRADING:

FIVE (5) scheduled examinations will be given throughout the semester. Each exam will cover approximately 15% of the total course material. The fifth exam will be given on the last day of class. It will cover the last 15% of new course material AND critical concepts that were covered throughout the semester. Exams questions will be primarily multiple choices and matching. Dates for examinations are as follows: Exam I, May 17; Exam II, May 24; Exam III, June 3; Exam IV June 10, Final Examination, Friday, June 14th.

The weighted percentages for all graded items are shown below.

Exam I	15%
Exam II	15%
Exam III	15%
Exam IV	15%
Final	20%
Daily Quizzes	10%
LearnSmart	10%

GRADING SCALE:

A: 90-100%, B: 80-89%, C: 70-79%, D: 60-69%, F: less than 60%

MAKE-UP EXAMINATIONS:

There are no make-up examinations. If an exam is missed (for any reason), the lowest exam score will be counted twice. If 2 exams are missed, a grade of 0 will be entered for the second exam.

EXAMINATION RESULTS:

Examination grades will **not** be given out over the telephone and emails. All examination results will be available to the student as soon as possible.

COURSE ANNOUNCEMENTS, SUPPLEMENTARY MATERIAL AND

ASSIGNMENTS: Students should check the Blackboard site regularly for announcements, supplementary material and assignments pertaining to this course.

ADD /DROP /WITHDRAWAL

The instructor will not drop from the class register any student who is included in the official class register. It is the **responsibility of the student** to take any action regarding course enrollment. Credit for this course will not be changed to Audit after the university designated deadline for enrollment changes has passed.

CHEATING/PLAGIARISM

This course adheres to the University policy on **cheating and plagiarism**. Cheating on exams, homework, online assignments and quizzes and/or providing fabricated information (e.g. forged doctor's excuse), **will not be tolerated** and could result in your **dismissal** from the course and/or the University. See details at <https://www.wku.edu/syllabusinfo/>

CIVILITY AND DISABILITY STATEMENTS

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, 1074. The phone number is 270.745.5004 [270.745.3030 V/TTY] or email at sarc@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. Information on Civility and Student Conduct can be accessed at: <https://www.wku.edu/syllabusinfo/>

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 Discrimination and Harassment Policy (#0.2040) at https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf. 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 Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270- 745-3159.

Please note that the professor reserves the right to alter this syllabus at any time.

Date	Topic
5/13	Ch. 1 Introduction, Ch. 2 Tools
5/14	Ch. 3 Bacteria and Archaea, Ch. 4 Eukaryotic Cells
5/15	Ch. 5 Viral Structure and Life Cycles
5/16	Ch. 6 Microbial Growth
5/17	Exam I Chapters 1-6; Ch. 9 Physical and Chemical Control of Growth
5/20	Lecture Ch. 9 continued, Ch. 7 Microbial Metabolism
5/21	Ch. 8 Microbial Genetics and Genetic Engineering
5/22	Ch. 8 Microbial Genetics and Genetic Engineering
5/23	Ch 10 Antimicrobial Treatment
5/24	Exam II Chapters 7-10; Ch. 11 Interactions between Microbes and Humans
5/27	Holiday
5/28	Ch. 11 Interactions between Microbes and Humans, Ch. 12 Host Defenses I
5/29	Ch. 12 Host Defenses I, Ch. 13 Host Defenses II
5/30	Ch. 13 Host Defenses II, Ch. 15 Diagnosing Infections
5/31	Ch. 15 Diagnosing Infections
6/3	Exam III Chapters 12-15; Ch. 16 Infections of the Skin and Eyes
6/4	Ch. 16 Infections of Skin and Eyes, Ch. 17 Infections of the Nervous system
6/5	Ch. 17 continued, Ch. 18 Infections affecting Cardiovascular and Lymphatic system
6/6	Ch. 19 Infectious diseases affecting the Respiratory Tract
6/7	Ch. 19 Infectious diseases affecting the Respiratory Tract
6/10	Exam IV Chapters 16-19; Ch. 20 Infectious diseases affecting the Gastrointestinal Tract
6/11	Ch. 20 Infectious diseases affecting the Gastrointestinal Tract
6/12	Ch. 21 Infectious disease affecting the Genitourinary Tract
6/13	Ch. 21 continued
6/14	Final Exam Chapters 20-21 (50%) Comprehensive (50%)