

Peru State College
BIOL 301 - MICROBIOLOGY
Syllabus – Spring – 2010

Instructor: Dr. John Hnida

Office Hours: MW 9:30 – 10:30; T 9:30 – 10:30; F 10:00 – 12:00

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Course Meets: Lecture MW 8:00 – 9:15; Lab F 8:00 – 9:45

Required Textbooks:

Lecture: Tortora, G.J., Funke, B.R. & Case, C.E. 2010. Microbiology: an introduction, 10th edition. Benjamin/Cummings, Menlo Park, CA.

Laboratory: Johnson, T.R. & Case, C.L. 2010. Laboratory experiments in microbiology, 9th edition. Benjamin/Cummings, Menlo Park, CA.

Course Description: An introduction to the biology of prokaryotic, eukaryotic and viral microbes, the diseases associated with microbes, and basic microbiology lab techniques.

Prerequisites: BIOL 101 and 102; or BIOL 210

Objectives: Upon completion of this course you should be able to:

1. Understand and apply the basic principles and methods of microbiology
2. Know and use the vocabulary of microbiology, especially as it pertains to human health
3. Better understand symbiotic microorganisms and symbioses of medical significance

At the beginning of the course, we will discuss how these objectives fit into the College's and School's mission and goals.

Instructional Approach & Expectations

The instructional approach will include classroom lectures and hands-on laboratory exercises.

Because attendance and participation are vital to one's learning experiences, you are expected to be at all lectures and labs having read the assigned material beforehand and prepared to participate in the day's work. Please be on time. To foster a learning environment, please join me in treating your classmates and yourselves with respect. I encourage everyone to ask questions, to seek help when needed, and to help your classmates understand the material.

Assessment, Grading and Attendance

Lecture Exams: There will be 2 in-class exams; each will be worth 100 points and will consist of short-answer, definition, and multiple-choice questions. The final exam (150 points) will include some of the materials covered in previous exams. Exam questions will come from homework, lectures, *and* reading assignments. You will be tested on the reading assignments, regardless of whether or not they have been discussed in class.

Laboratory

Quizzes: Lab quizzes will be worth 20 points each. The first lab quiz will cover information from lectures and the text. The remaining 4 lab quizzes will emphasize lab material but may include pertinent information from the lectures and readings. Quizzes will primarily consist of short-answer questions.

Lab notebook: This will be graded at the end of the semester, so be sure to complete all of the assigned materials.

Lecture exams (2):	200
Final exam:	150
Lab quizzes (5):	100
Lab notebook:	50

	500 total

Grading Scale: A = 90-100%; B+ = 85-89%; B = 80-84%; C+ = 75-79%; C = 70-74%; D+ = 65-69%; D = 60-64%; F = 59% or below

Attendance Policy: As stated above, students are expected to attend lecture and lab regularly and to arrive punctually. Lectures will not be repeated and one cannot make up a missed lab. Attendance is a privilege and a responsibility represented by not only the student's investment, but also by a significant investment by the State of Nebraska.

Active cell phones are not allowed in lecture or lab without my permission for extenuating circumstances (e.g., first-response on-call, etc.). Please turn off your cell phones prior to entering the lecture or laboratory and leave them off until after you have left the lecture or lab.

Makeup exams/quizzes: Permission to take a makeup exam or quiz must be obtained from the instructor *prior* to the day of the exam/quiz, otherwise you will receive a zero. Leaving a phone or e-mail message does not constitute prior permission. Unless you have personally received permission from me it will not be granted once the exam or quiz has been given. Makeup exams/quizzes: a) must be taken within 1 week of the scheduled test, b) will be given at a time that fits within my schedule (e.g., during office hours), & c) will be in essay format in the case of makeup lecture exams.

Homework Assignments: Homework assignments are for your benefit and will not be graded. Do them in a timely fashion; do not wait until exam or quiz time to cram—cramming will likely cause undue stress and a poor grade.

College's Incomplete Coursework Policy

To designate a student's work in a course as incomplete at the end of a term, the instructor records the incomplete grade (I). Students may receive this grade only when serious illness, hardship, death in the immediate family, or military service during the semester in which they are registered prevents them from completing course requirements. In addition, to receive an incomplete, a student must have completed substantially all of the course's major requirements.

Unless extenuating circumstances dictate otherwise, students must initiate requests for an incomplete by filling out an Incomplete Grade Completion Contract, which requires the signature of the student, instructor, and Dean. The Incomplete Grade Completion contract cites the reason(s) for the incomplete and details the specific obligations the student must meet to change the incomplete to a letter grade. The date by which the student agrees to complete required work must appear in the contract. The Dean, the instructor, and the student receive signed copies of the Incomplete Grade Completion Contract.

Even if the student does not attend Peru State College, all incomplete course work must be finished by the end of the subsequent semester. Unless the appropriate Dean approves an extension and if the student does not fulfill contract obligations in the allotted time, the incomplete grade automatically becomes an F.

College's Academic Integrity Policy

The College expects all students to conduct themselves in a manner that supports an honest assessment of student learning outcomes and the assignment of grades that appropriately reflect student performance. It is ultimately the student's responsibility to understand and comply with instructions regarding the completion of assignments, exams, and other academic activities. At a minimum, students should assume that at each assessment opportunity they are expected to do their own original academic work and/or clearly acknowledge in an appropriate fashion the intellectual work of others, when such contributions are allowed. Students helping others to circumvent honest assessments of learning outcomes, or who fail to report instances of academic dishonesty, are also subject to the sanctions defined in this policy.

Instances of academic dishonesty may be discovered in a variety of ways. Faculty members who assign written work ordinarily check citations for accuracy, run data base and online checks, and/or may simply recognize familiar passages that are not cited. They may observe students in the act of cheating or may become aware of instances of cheating from the statements of others. All persons who observe or otherwise know about instances of cheating are expected to report such instances to the proper instructor or Dean.

In order to promote academic integrity, the College subscribes to an electronic service to review papers for the appropriate citations and originality. Key elements of submitted papers are stored electronically in a limited access database and thus become a permanent part of the material to which future submissions are compared. Submission of an application and continued enrollment signifies your permission for this use of your written work.

NSCS Board of Trustees Policy 4220 states that each College “. . . will establish a distance learning assessment policy that will include, at a minimum, a substantial culminating experience that is proctored.” Peru State College’s policy is that each course that is offered entirely online will feature a proctored final exam that substantially measures the extent the course’s stated learning objectives are achieved. Online course syllabi will clearly state that, regardless of grades earned previously, the proctored final exam must be passed in order to receive credit for the course. Courses which feature graded site-based activities (e.g., teaching demonstrations) and/or video-taped presentations that occur near the end of the term, and that are designed to substantially assess the achievement of learning objectives, can be considered in compliance with this policy. Project-based capstone and graduate courses utilizing real-time discussions held by web-cam, phone or in person with the faculty member as part of the assessment process can also be considered in compliance with this policy.

Should an occurrence of academic misconduct occur, the faculty member may assign a failing grade for the assignment or a failing grade for the course. Each incident of academic misconduct should be reported to the Dean and the Vice President for Academic Affairs (VPAA). The VPAA may suspend students for two semesters found to be responsible for multiple instances of academic dishonesty. The reason for the suspension will be noted on the student’s transcript.

A faculty member need present only basic evidence of academic dishonesty. There is no requirement for proof of intent. Students are responsible for understanding these tenets of academic honesty and integrity. Students may appeal penalties for academic dishonesty using the process established for grades appeals.

Title IX Compliance Notice

Peru State College is an equal opportunity institution. PSC does not discriminate against any student, employee or applicant on the basis of race, color, national origin, sex, disability, religion, or age in employment and education opportunities, including but not limited to admission decisions. The College has designated an individual to coordinate the College’s nondiscrimination efforts to comply with regulations implementing Title VI, VII, IX, and Section 504. Inquiries regarding non-discrimination policies and practices may be directed to Eulanda Cade, Director of Human Resources, Title VI, VII, IX Compliance Coordinator, Peru State College, PO Box 10, Peru, NE 68421-0010, (402) 872-2230.

Students requesting reasonable accommodation and tutoring services should contact the Center for Achievement and Transition Services (CATS).

Tentative Lecture Schedule

Week of	Topics	Chapters Assigned
Jan 11	Overview of the microbial world	1
Jan 18	Microscopy	3
Jan 25	Functional anatomy of cells	4
Feb 1	“ “ “ “	4
Feb 8	Microbial growth	6
Feb 15	Overview of classification of microbes	10
Feb 22	Prokaryotes	11
Mar 1	“	11
Mar 15	Eukaryotic microbes	12
Mar 22	“ “	12
Mar 29	Viruses	13
Apr 5	“ (Note: No class M, 4/5)	13
Apr 12	Principles of disease and epidemiology	14
Apr 19	“ “ “ “ “	14
Apr 26	Mechanisms of pathogenicity	15
May 3	Final Exam: Wednesday, May 5; 08:00-10:00	

Tentative Lab Schedule

Date	Lab Exercise
Jan 15	Introduction to lab & lab safety; Quiz
Jan 22	1 – Use & care of the microscope
Jan 29	2 – Examination of living microorganisms
Feb 5	3 – Smears and simple staining; Quiz
Feb 12	5 – Gram staining
Feb 19	9 – Microbes in the environment
Feb 26	10 – Aseptic technique
Mar 5	11 – Isolation of bacteria by dilution; Quiz
Mar 19	12 – Special media for isolating bacteria
Mar 26	24 – Disinfectants and antiseptics
Apr 2	25 – Antimicrobial drugs; Quiz
Apr 9	13 – Carbohydrate catabolism
Apr 16	15 – Protein catabolism
Apr 23	No lab
Apr 30	46 – Bacteria of the skin; Quiz

Caveat: The above schedules are subject to change in the event of extenuating circumstances. Modifications will be communicated to the students as soon as possible.