

**Microbiology
BIOL A300**

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Spring 2014
TR 8:00-9:15am
Classroom: Bobet 214B
Office Hours: TBA

TEXT: Microbiology 9th ed. Prescott, Harley & Klein. McGraw-Hill Publishers.
Course materials posted on Blackboard: <http://blackboard.loyno.edu/>
Please check email and Blackboard site frequently for updates.

COURSE OBJECTIVES:

1. To gain an appreciation of the amazing microbial world.
2. To understand key concepts in microbiology and be able to apply these concepts to real-world problems.
3. To become more aware of scientific issues around you and possess the skills and understanding which will enable you to contribute to societal decisions regarding these issues.
4. To learn to work together, to support and teach each other.
5. To improve your skills in oral scientific communication.

TENTATIVE LECTURE AND EXAM SCHEDULE

Date	Lecture Topic (projected lecture periods)	Chapter
	Introduction	“To the Ends of Earth” (posted on Bb)
	History and Scope of Microbiology (2)	1
	Microscopy (2)	2
	Prokaryotic Structure and Function (2)	3
	Microbial Nutrition and Growth (1)	7
	Control of Microorganisms (1)	8
2/6	Exam 1	
	Metabolism (2)	11 (Review 10)
	Regulation of Gene Expression (1)	14 (Review 13)

	Mechanisms of Genetic Variation (1)	16
	Recombinant DNA Technology (2)	17
	Microbial Evolution, Taxonomy and Diversity (1)	19
3/11	Exam 2	
	The Proteobacteria (3)	22
	The Low G+C Gram Positives (1)	23
	The High G+C Gram Positives (1)	24
	The Protists (1)	25
4/3	Exam 3	
	The Viruses (1)	6, 27
	Nonspecific (Innate) Host Resistance (1)	33
	Specific (Adaptive) Immunity (2)	34
	Infection and Pathogenicity	35
4/29	Exam 4	

GRADING:

4 exams (100 pts. each)	400
Presentation	40
Service Learning/Paper	40
Pop Quizzes	20
Total possible points:	500

EXTRA CREDIT (≤ 20 pt) - for outstanding class participation

Scale: A: 100-90%, B: 89-80%, C: 79-70%, D: 69-55%, F: <55%

NOTE: Students should contact the professor as soon as extenuating circumstances arise that will result in absence on an exam day. Make-up exams may only be taken with a written medical excuse from a doctor or excuse acceptable to the instructor.

Documentation is required (ex. obituary notice, doctor's note).

SERVICE LEARNING: You will have the option of enhancing your microbiology education and contributing to your community by engaging in a Service Learning activity. Your transcript will reflect that this course included a Service Learning

component. As an alternative you may write a research paper (approximately 10 pages double-spaced) on a subject agreed to by the professor in lieu of the Service Learning activity. Possible service learning activities can be found on Loyola's Service Learning website: <http://www.loyno.edu/servicelearning/>

Reflective Component:

Near the end of the semester I will post questions to help you to reflect on your experience. You will submit a short written summary of your experience and how it improved your learning of microbiology. You will also have an opportunity to present what you have learned to others in the class.

MICROBIOLOGY PRESENTATION: You will make a 15-20 minute presentation on a topic agreed upon by the professor. Please provide a general background introduction and end with current significant research on the subject. Also provide the class with an outline and references.

ACADEMIC HONESTY POLICY: Cheating and plagiarism are considered the most serious transgression a university student can make against their own honor, fellow students, the university, and the public. A student who is found to have cheated on any examination or plagiarized will be given a failing grade for that assignment and the incident reported to the Biology chair and the dean. A second infraction will result in a failing grade in the course.

ATTENDANCE POLICY: Regular class attendance is required. A student with an unexcused absence is responsible for obtaining any course handouts or notes for that lecture from a fellow student.

Students with disabilities who wish to receive accommodations in this class should contact Disability Services at 865-2990 as soon as possible so that warranted accommodations can be implemented in a timely fashion. Disability Services are located in the Academic Enrichment Center, Monroe Hall 405.