BIOL 305 SYLLABUS
Biology of Microorganisms - Spring 2015
Section 001, CRN 17597
10:30am to 11:20am, MWF
Innovation Hall 103

Instructor: Charles Madden, PhD
Office: Exploratory Hall room 1207
Office hours: MW 3:30-4:30pm or by appointment
Email: cmadden@gmu.edu
Blackboard: http:/mymasonportal.gmu.edu/

The goal of this course is to teach students the basic principles of microbiology and to instill in each student an appreciation of the microbial world. The basic principles will be taught by lectures listed below and will be based on material in the textbook. Students are expected to attend lectures and to read the chapters listed. Lecture material will be presented by PowerPoint slides, and will contain some material not found in the textbook. The lecture schedule is subject to change based on progress. Questions or comments to the instructor during the class meeting are encouraged and I will communicate with students throughout the semester by email, **so every student must have an active GMU email account.**

Lecture exams covering specific sections of the material will be administered during the semester. One lecture exam plus a cumulative final exam will be administered during the scheduled final examination period. All tests are 40 multiple choice questions worth 100 points each. One exam score will be dropped. Make-up exams are not offered unless the absence is due to a university-related activated such as athletics, field trips, etc.

A series of optional in-class quizzes (administered by **IClicker** devices) and worksheets will be administered during the semester (12.5 points each). The 8 highest quiz/worksheet scores will be kept and add up to an additional optional exam score. This optional exam score DOES NOT replace a regular exam score but will be used as an additional exam score in the final grade calculation and only if it improves your grade. NO make-ups are given for quizzes or worksheets for any reason including failure of the IClicker device.

When a class in which a graded assignment is to be given is not met by the faculty member because of weather, sudden illness, transportation delays, etc., the assignment will automatically be rescheduled for the next class meeting.

All students are expected to maintain the GMU honor code by practicing ethical behavior and submitting original work. To assist with another student's unethical behavior is also a violation of the honor code. Remember, the honor code protects your hard work and the value of your degree from GMU.

Due to the large number of students in my classes (approximately 400 this semester alone), please contact other faculty for letters of reference when possible. I am currently providing 2 to 3 letters per week for current and previous students and cannot accommodate many new requests.

Grades:

Four lecture exams	+100 points each
Cumulative final	+100 points
One dropped exam score	-100 points
Lecture total	400 points

and/or

Top quiz/HW scores	+100 points
Four lecture exams	+100 points each
Cumulative final	+100 points
One dropped exam score	-100 points
Lecture total	500 points

93-100	**A**
90-92	**A-**
87-89	**B+**
83-86	**B**
80-82	**B-**
77-79	**C+**
70-76	**C**
60-70	**D**
<60	**F**

Texts and accessories:

Tortora, Funke, and Case. **Microbiology, An Introduction.** any recent edition. Benjamin Cummings.

For those also taking Biol 306 (the laboratory):
Deborah Polayes**. Biology of Microorganisms, A Laboratory Manual.** 3rd edition, Kendall/Hunt **(Required)**

Lecture Schedule:

DATE	TOPIC	CHAPTER
Jan 21	Intro, History, Classification	1 (p1-12)
Jan 23-Feb 4	Cell structures and anatomy	3 (p53-57, 67-71), 4 (all)
Feb 6-13	Metabolism	5 (p111-143)
Monday, Feb 16	**Exam 1**	1,3-5
Feb 18-20	Bacterial Growth	6
Feb 23-25	Control of Growth	7
Feb 27-Mar 2-4	Genetics	8
Friday, Mar 6	**Exam 2**	6-8
Mar 09-13	**Spring Break**	
March 16	**No class**	
Mar 18-20	Prokaryotic diversity	11
Mar 23-27	Eukaryotic diversity	12
Mar 30-April 6	Viruses, HIV and AIDS	13, 19 (pp545-554)
Wednesday, April 8	**Exam 3**	11-13, 19 (pp545-554)
April 10-15	Disease and Epidemiology	14
April 17, 20	Pathology	15
April 22-27	Innate immunity	16
April 29-May 4	Adaptive Immunity/vaccines	17, 18 (p504-511)
Wed, May 6th **10:30 to 12:30pm**	**Exam IV** **Cumulative Final exam**	14-18 All material

An **iClicker** device
This course will be using i>Clicker for the in class quizzes. iClicker is a response system that allows you to respond electronically to questions posed during class, and you will be graded on your answers and/or participation. **YOU ARE RESPONSIBLE FOR BRINGING YOUR iCLICKER TO EVERY CLASS.**

You must use an iClicker device, we are not currently using a smart phone based system

You need to register your iClicker at www.iclicker.com/registration To be eligible to receive credit for the quizzes, you will need to register your iClicker **before the second week of classes**. The iClicker is available at the bookstore. If you have an iClicker from another class you may use it in this class.

For registration, you need to complete all the fields: first name, last name, student ID, clicker ID, and the verification field.

Student ID-is your GMU email user ID (e.g. cmadden@gmu.edu = my user ID is cmadden). If you have registered using your G-number in another course, register again with your ID.
Clicker ID-is the serial number found on the back of your iClicker. (note: iClicker serial numbers do not contain the letter "O", only zeros)