MIBO 3500 - Introduction to Microbiology
Fall 2017
Room 404B Biological Sciences Building MWF 10:10-11:00

INSTRUCTOR:

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GRADUATE TEACHING ASSISTANTS:

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OFFICE HOURS:

Duncan Krause: by appointment (contact me at **dkrause@uga.edu** to arrange day and time)
Alan Schmalstig: Monday 11:30-1:00 & Wednesday 1:00-2:30 in 808 Biol Sci Bldg
Bowen Meng: Tuesday 10:30-12:00 & Thursday 9:00-10:30 in 548 Biol Sci Bldg

RESOURCES:

Textbook: *Microbiology: An Evolving Science*, Slonczewski *et al*., 3rd or 4th edition (*OPTIONAL*)

Lecture PowerPoints: Files are posted on eLC and should not be considered comprehensive. You are strongly encouraged to review each day's material before class. There will be additional details discussed in class that are not included in these files, and so it's important that you attend lecture regularly.

eLC: will include the syllabus, species lists, exam grades, old exams from last year, lecture files, case studies, and after Drop-Add, your case study team assignment.

Updates and Communication: If I need to communicate with the class outside of lecture I will post notices on eLC. To communicate with me please **email me directly** (dkrause@uga.edu).

Attendance: Students are expected to attend all lectures and are responsible for all material and instructions covered during class. There is no mandatory attendance policy, but there will be material discussed in class that is not in the PowerPoint files on eLC and that will appear on exam questions. Unannounced quizzes are always a possibility.

GRADES:

Exams: Tests will focus on material covered in class. There will be 3 in-class exams and a comprehensive final exam. Your lowest score from the four exams will be dropped. Thus, if you are satisfied with your grade from the in-class exams, you might choose not to take the final exam. **There are NO MAKE-UP EXAMS. If an exam is missed for any reason, the missed exam will count as your dropped exam. I do make exceptions to this rule under extreme circumstances and for participation in certain UGA-sanctioned events. Contact me if you have questions whether your circumstances might apply.**

In the event class is canceled (for example due to weather) on a date when an exam is scheduled or an assignment is due, these will be rescheduled for the first class day back.

Students can review their graded exams during TA office hours. Exams may photographed but not removed from the presence of the TA. Grade appeals for individual exams or assignments must be submitted to a TA by email by the deadline posted after each exam / assignment.

Case Studies: There will be approximately 6 case studies. Students will be randomly assigned to small groups to research and discuss each case study and prepare a single group response for each case study question. Case studies will be discussed in class, with group members asked to share their group's answers. Exams will include questions taken from the case study discussions.

Species Quizzes: There will be 2 CUMULATIVE species quizzes.

Final Course Grade:

Case Study and Species Quiz Totals	**25%**
Exam average	**75%**

Assume that grades will be assigned according to the following scale, with no curve. I do round grade averages upward according to normal convention.

		A	93 –100	A –	90 – 92
B+	87 – 89	B	83 – 86	B –	80 – 82
C+	77 – 79	C	73 – 76	C –	70 – 72
D	60 – 69	F	< 60		

For questions about the plus/minus grading, go to this site:
http://bulletin.uga.edu/PlusMinusGradingFAQ.html

ACADEMIC HONESTY:
As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty", and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: www.uga.edu/honesty <http://www.uga.edu/honesty>. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to the course assignments and the academic honesty policy should be directed to the instructor. Be aware that the prohibition of unauthorized assistance includes use of social media for such purposes.

This syllabus is subject to change in the case of unforeseen circumstances during the semester and should be considered a flexible document.

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Date	Topic	eLC Notes	Text (4th)
UNIT 1: Microbial Architecture and Metabolism			
Mon Aug 14	Overview	Lecture 1	Ch. 1
Wed Aug 16	Microscopy	Lecture 2	Ch. 2
Fri Aug 18	Microbial Cell Structure	Lecture 3	Ch. 3
Mon Aug 21	No Class (go experience the eclipse!)		
Wed Aug 23	Microbial Cell Structure	Lecture 3	Ch. 3
Fri Aug 25	Bacterial Nutrition & Growth / **Case Study #1 (10 pts)**	Lecture 4	Ch. 4 & 5
Mon Aug 28	Bacterial Nutrition & Growth	Lecture 4	Ch. 4 & 5
Wed Aug 30	Control of Microbial Growth	Lecture 5	Ch. 5
Fri Sept 1	Metabolism	Lecture 6	Ch. 13-15
Wed Sept 6	Metabolism / **Case Study #2 (10 pts)**	Lecture 6	Ch. 13-15
Fri Sept 8	Metabolism	Lecture 6	Ch. 13-15
UNIT 2: Microbial Genetics, Regulation, and Viruses			
Mon Sept 11	DNA Replication in Bacteria	Lecture 7	Ch. 7
Wed Sept 13	**UNIT 1 EXAM (100 pts)**	Lectures 1-6	
Fri Sept 15	DNA Replication in Bacteria	Lecture 7	Ch. 7
Mon Sept 18	Genomes, Mutations, and Genetic Exchange	Lecture 8	Ch. 9
Wed Sept 20	Genomes, Mutations, and Genetic Exchange	Lecture 8	Ch. 9
Fri Sept 22	Genomes, Mutations, and Genetic Exchange	Lecture 8	Ch. 9
Mon Sept 25	Regulating Cellular Processes	Lecture 9	Ch. 10
Wed Sept 27	Regulating Cellular Processes / **Case Study #3 (10pts)**	Lecture 9	Ch. 10
Fri Sept 29	Regulating Cellular Processes	Lecture 9	Ch. 10
Mon Oct 2	Regulating Cellular Processes	Lecture 9	Ch. 10
Wed Oct 4	Magic Bullets	Lecture 10	Ch. 27
Fri Oct 6	Viruses	Lecture 11	Ch. 6
Mon Oct 9	Viruses	Lecture 11	Ch. 6
Wed Oct 11	Viruses	Lecture 11	Ch. 6
Fri Oct 13	**UNIT 2 EXAM (100 pts)**	Lectures 7-11	
UNIT 3: Microbes for Better and for Worse			
Mon Oct 16	Microbial Ecology	Lecture 12	Ch. 21, 22
Wed Oct 18	Microbial Ecology	Lecture 12	Ch. 21, 22
Thurs Oct 19	**Withdrawal deadline**		
Fri Oct 20	Extreme Environments	Lecture 13	Ch. 21, 22
Mon Oct 23	**Species Quiz #1 (20 pts)**		
Wed Oct 25	Biofilms	Lecture 14	NA
Mon Oct 30	Microbial Symbiosis	Lecture 15	NA
Wed Nov 1	Microbial Symbiosis / **Case Study #4 (10 pts)**	Lecture 15	NA
Fri Nov 3	Food and Industrial Microbiology	Lecture 16	Ch. 16
Mon Nov 6	Infections and Epidemiology	Lecture 17	Ch. 28
Wed Nov 8	Infections and Epidemiology / **Case Study #5 (10 pts)**	Lecture 17	Ch. 28
Fri Nov 10	Bacterial Pathogenesis /	Lecture 18	Ch. 25
Mon Nov 13	Bacterial Pathogenesis	Lecture 18	Ch. 25
Wed Nov 15	**UNIT 3 EXAM (100 pts)**	Lectures 12-18	
Fri Nov 17	Host Defense	Lecture 19	Ch. 23, 24
UNIT 4: Immune Defenses			
Mon Nov 27	Host Defenses	Lecture 19	Ch. 23, 24
Wed Nov 29	Host Defenses / **Case Study #6 (10 pts)**	Lecture 19	Ch. 23, 24
Fri Dec 1	**Species Quiz #2 (20 pts)**		
Mon Dec 4	Host Defenses	Lecture 19	Ch. 23, 24
Tues Dec 5	Vaccines	Lecture 20	NA
Wed Dec 13	**UNIT 4 & FINAL EXAM 8:00-9:30 AM (100 pts)**	Cumulative	