#### INTRODUCTORY MICROBIOLOGY & IMMUNOLOGY

SPRING 2016 CLASS SCHEDULE

MIC 301/303/320

MIC 301 R1** and R2 Laboratory Spring 2016:
Cox Science Bldg. Room 251 M & W
Section 01 8:00 - 10:30
Section 02 11:15 - 1:45
Section 03 2:30 - 5:00
Section 04 5:45 - 8:15
MIC 304 Laboratory Fall 2016
Cox Science Bldg. Room 251 M & W
Section 02 & 03** 11:15 - 1:45
Section 04 & 05** 2:30 - 5:00

<sup>\*</sup> If lab (MIC 304) is not completed in the Fall, the MIC 303 will not be considered an equivalent to the MIC 301. If the time of the lab in the Fall will be a problem please drop the course.

\*\* denotes honors sections

#### **Required Text:**

Microbiology: An Evolving Science, 3<sup>rd</sup> Edition by Slonczewski and Foster ISBN-13: 9780393123678 \$160 New, \$120 Used, \$112 Rental New, \$80 Rental Used: UM bookstore soft cover E-book Version ISBN-13: 9780393903355 \$101.66 Own: Norton Publishing <a href="http://books.wwnorton.com/books/detail-formats.aspx?ID=4294977366">http://books.wwnorton.com/books/detail-formats.aspx?ID=4294977366</a>
<a href="http://books.wwnorton.com/books/detail.aspx?ID=4294979761">http://books.wwnorton.com/books/detail.aspx?ID=4294979761</a>
<a href="mailto:Rental-\$50">Rental \$50</a>

## **Highly Recommended Laboratory Supplement:**

A Photographic Atlas for the Microbiology Laboratory, 4<sup>rd</sup> Edition by Leboffe and Pierce ISBN-13: 9781617310072 \$41.26 New: UM bookstore

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## HONORS STUDENTS

All honors students who are registered for MIC 301, MIC 320 or MIC 303 Section R1, must also be registered for MIC 302 Section S1 Seminar. In order to get honors credit you must complete summaries of each of the seminars. If the summaries are not received on the specified date no grade will be entered as your final grade until they are turned in. Summaries should be a page and a half each, typed and turned in to Roger on the date stated.

Fri., Apr. 22	Classes End at 11:00 PM
Apr. $23 - 26$	Reading Days
Mon., May 9	Final Grades released by faculty in Canelink by 12pm
Wed., May 11	Final Grades available to students in Canelink
Wed., Jan. 27	Last day to drop a course without a "W"
Mon., Mar. 23	Last day to drop a course.

# Microbiology 301, 303, and 320 Lecture Schedule

Blocks	Dates	Lectures
1	Tues., Jan. 12 Thurs., Jan 14 Tues., Jan 19 Thurs., Jan 21 Tues., Jan. 26 Thurs., Jan. 28 <b>Tues., Feb. 2</b>	Prokaryotic Cell Structure and Function I- Dr. Munson Prokaryotic Cell Structure and Function II - Dr. Munson Prokaryotic Cell Structure and Function III - Dr. Munson Prokaryotic Cell Structure and Function IV - Dr. Munson Prokaryotic Cell Structure and Function V - Dr. Munson Prokaryotic Cell Structure and Function VI - Dr. Munson Prokaryotic Cell Structure and Function VI - Dr. Munson Exam 1: Block 1 (55 questions)
2	Thurs., Feb 4 Tues., Feb. 9 Thurs., Feb. 11 Tues., Feb. 16 Thurs., Feb. 18 Tues., Feb. 23 Thurs., Feb. 25Exam	Bacterial Pathogenesis I - Dr. Plano Bacterial Pathogenesis II - Dr. Munson Bacterial Pathogenesis III - Dr. Munson Bacterial Pathogenesis IV - Dr. Plano Bacterial Pathogenesis V - Dr. Plano Bacterial Pathogenesis VI - Dr. Plano Bacterial Pathogenesis VI - Dr. Plano 2: Block 2 (55 questions)
3	Tues., Mar. 1 Thurs., Mar. 3 Sat., Mar. 5 Sun., Mar. 13 Tues., Mar. 15 Thurs., Mar. 17 Tues., Mar. 22 Thurs., Mar. 24 Tues., Mar. 29	Parasitology I - Dr. Ager Parasitology II - Dr. Ager  SPRING BREAK SPRING BREAK Immunology I - Dr. Lichtenheld Immunology II - Dr. Lichtenheld Immunology III - Dr. Lichtenheld Immunology IV - Dr. Lichtenheld Immunology IV - Dr. Lichtenheld Exam 3: Block 3 (55 questions)
4	Thurs., Mar. 31 Tues., Apr. 5	Immunology V - Dr. Lichtenheld Immunology VI - Dr. Lichtenheld
5	Thurs., Apr. 7 Tues., Apr. 12 Thurs., Apr. 14 Tues., Apr. 19 <b>Thurs., Apr. 21</b>	Virology I - Dr. Lopez Virology II - Dr. Lopez Virology III - Dr. Lopez Virology IV - Dr. Lopez Exam 4: Blocks 4 & 5 (55 questions)

## **INSTRUCTORS**

Dr. Arba Ager, Associate Professor Department of Microbiology and Immunology University of Miami School of Medicine Phone: 305-243-3142

Dr. Mathias Lichtenheld, Associate Professor Department of Microbiology and Immunology University of Miami School of Medicine Phone: 305-243-3301

Dr. George Munson, Associate Professor Department of Microbiology and Immunology University of Miami School of Medicine Phone: 305-243-5317

Dr. Gregory Plano, Professor Department of Microbiology and Immunology University of Miami School of Medicine Phone: 305-243-6310

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Dr. Diana Lopez, Professor, Undergraduate Program Director, Course Coordinator, Advisor
Department of Microbiology and Immunology
University of Miami School of Medicine
Phone: 305-243-6632

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Roger Williams Jr., MS Ed, Director, Student Activities, Lab Coordinator, Advisor Department of Microbiology and Immunology Cox Science Bldg. Room 251 A

Phone: 305-284-6422

# **Microbiology 301 Laboratory Schedule**

Dates	Laboratories		
Mon., Jan. 18	Holiday (Martin Luther King, JR. Day)		
Wed., Jan. 20	Lab - Exercise 0 Microscope 101		
Mon., Jan. 25	Lab - Exercise 1 (The Culturing of Microorganisms), Quiz 1		
Wed., Jan. 27	Lab - Exercise 2 (Motility detection and Staining techniques)		
Mon., Feb. 1	Lab - Exercise 3 (Staining methods), Quiz 2		
Wed., Feb. 3	Lab - Exercise 4 (Study of Morphology)		
Mon., Feb. 8	Lab - Exercise 5 (Metabolic Reactions I), Quiz 3		
Wed., Feb. 10	Lab - Exercise 5 (Metabolic Reactions I cont.)		
Mon., Feb. 15	Lab - Exercise 5 (Metabolic Reactions II), Quiz 4		
Wed., Feb. 17	Lab - Exercise 5 (Metabolic Reactions II cont.)		
Mon., Feb. 22	Lab Exam 1 (Exercises 0 – 5, 100 possible points)		
Wed., Feb. 24	Lab - Exercise 6 (Skin Bacteria)		
Mon., Feb. 29	Lab - Exercise 7 (Bacterial Analysis of Water/Air), Quiz 5		
Wed., Mar. 2	Lab - Exercise 7 (cont.)		
Mon., Mar. 7	SPRING BREAK		
Wed., Mar. 9	SPRING BREAK		
Mon., Mar. 14	Lab - Exercise 8 (Parasitology), Quiz 6		
Wed., Mar. 16	Lab - Exercise 8 (cont.)		
Mon., Mar. 21	Lab - Exercise 9 (Antimicrobial Susceptibility Testing), Quiz 7		
Wed., Mar. 23	Lab - Exercise 9 (cont.) & 10 (Unknown Experiment) <b>Unknowns given out</b>		
Fri., Mar. 25	Check on cultures in lab from 12-2pm and refrigerate them if needed.		
Mon., Mar. 28	Lab - Exercise 10 (cont.) Work on unknown, Quiz 8		
Wed., Mar. 30	Lab - Exercise 11 (ELISA) & Work on unknown		
Fri., Apr. 1	Check on cultures in lab from 12-2pm and refrigerate them if needed.		
Mon., Apr. 4	Lab Exam 2 (Exercises 6 – 11, 100 possible points)		
Wed., Apr. 6	Lab - Exercise 12 (Blood Typing) & Work on unknown, Quiz 9		
Mon., Apr. 11	Lab - Exercise 13 (Transformation) & Work on unknown, Quiz 10		
Wed., Apr. 13	Lab - Exercise 13 (PCR) & Work on unknown		
Mon., Apr. 18	Lab - Exercise 13 Analysis, Quiz 11 & Last unknown test run		
Wed., Apr. 20 Fri., Apr. 22	Lab - Practical Exam/ (Exercises 0 – 13, 100 possible points) Lab - Unknown Reports Due (100 possible points)		

# **Laboratory Teaching Assistants**

Section 01	Section 02	Section 03	Section 04
Kevin Toomer	Jennifer Chavez	Shahil Patel	Kyle Russell
KHToomer@med.miami.	j.chavez8@umiami.edu	s.patel41@umiami.edu	kbr13@med.miami.edu
<u>edu</u>			
Annette Prieto	Michaela Larson	Barbara Puodzius	Victoria Pinilla
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Roger Williams riwill@miami.edu 305-284-6422			

## **Laboratory Attendance**

A substantial part of this laboratory course is based upon classroom participation. Regular and punctual attendance is therefore required. Absences for University approved reasons must be discussed with Dr. Lopez or Roger in advance. Absences due to illness will require verification. Absences relating to the observance of religious holidays must be brought up with Roger within the first week of classes in order to be excused. Poor attendance may affect your final grade. Class Attendance will be taken periodically; this information will be used when calculating your final grade. It is recommended that all students attend all classes.

## **Laboratory Manual**

Latex gloves will be provided to students. There will be a \$20 fee for the laboratory manuals to cover printing costs...

# **Grading System for the Entire Course**

Examinations will be based upon lecture material, handouts, and specific book assignments.

	<b>MIC 301</b>	<b>MIC 320</b>	<b>MIC 303</b>	MIC 303 and 304 completed
Lecture Exam #1	20%	25%	25%	20%
Lecture Exam #2	20%	25%	25%	20%
Lecture Exam #3	20%	25%	25%	* 20%
Lecture Exam #4	20%	25%	25%	20%
Laboratory	20%	0%	TBD <sup>)</sup>	20%*

<sup>\*</sup>The grade you earn in MIC 303 can go up or down after taking the MIC 304 in the fall, a change of grade will be turned in so that the MIC 303 grade matches the MIC 304 grade after it's all recalculated.

## **Grading Scale**

A	90 - 100
В	80 - 89
C	70 - 79
D	60 - 69
F	0 - 59

There will be "+" and "-" grades assigned in this course.

### **Exams**

Exams will be held on the scheduled days. The instructors, if necessary, may move exams. Students will not be allowed makeup exams unless there is <u>adequate documentation</u> from their doctor, a police report or death certificate of family member. Any makeup exams given will be conducted at the discretion of the instructors.

# Day of the Exam

Seats will be assigned to each student and posted to blackboard the evening before an exam. It is up to the student to know what their assigned seat number is prior to entering the exam room. Before entering the room, all electronic devices and materials should be turned off or put away. You should only have number two pencil(s) on your desk. If an exam is on your desk, you may **NOT** begin until we indicate that you may do so. You may begin to fill out your scantron sheet. If we suspect that there is a violation to the honor code during the exam the course of action is left to the instructor for that exam.

Each exam is made up of 55 one point questions. 5 of these questions at the end of each exam will be labeled as "**Extra Credit**". For the 4 exams your grade is out of 200 points, some students may earn grades above 100%. Raw scores will be posted to blackboard for each exam.

Apart from the points mentioned, there will be no other opportunities for extra credit in this course.

# **For Your Information**

The Microbiology and Immunology major is based on the medical campus. All of our faculty teach graduate, medical and undergraduate students. As most of you are aware, the MIC 301/Lab is a recommended course for those pursuing a career in the health sciences (as you will see microbiology in the first year of medical school). Additionally, the MIC 320 is required for nursing students to enter the clinical portion of their program.

Students interested in pursuing a **major** in Microbiology and Immunology must take MIC 301 or MIC 303 + 304 equivalent, MIC 319 and MIC 321 plus an additional 13 credits in the program in addition to the B.S. degree requirements. Major = 24 credits. If you are currently in your sophomore year, a switch to microbiology is not too late please contact Roger Williams for details.

Those wishing to **minor** in Microbiology and Immunology must take MIC 301 or MIC 303 + 304 equivalent, MIC 319 and MIC 321 plus an additional 1 credit in the program. Minor = 12 credits. The honors section of MIC 301 (MIC 302) may be used for this 1 credit or MIC 441.

MIC 320 cannot be used to count toward the major or minor in Microbiology and Immunology. Therefore if you are currently in MIC 320 and wish to be a MIC major or minor you will need to switch to MIC 301 or MIC 303.

For specifics regarding requirements, please see your Undergraduate Bulletin.

# **Courses offered in our department**

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MIC 201 (Modern Plagues in Society)
MIC 301/Lab (Introductory Microbiology and Immunology)
MIC 302 (Honors Seminar) Co-requisite MIC 301, 303 and 320 honors sections
MIC 303 Part 1 (Introductory Microbiology and Immunology Lecture)
MIC 304 Part 2 (Introductory Microbiology and Immunology Lab)

Equals MIC 301

MIC 320 (Nursing Microbiology) Only for Nursing students

MIC 319 (Innate Immunity)
MIC 321 (Immunobiology)
MIC 322 (Parasitology)
MIC 323 (Principles of Microbial Pathogenesis)
MIC 436 (Virology)
MIC 441 (Colloquium)
MIC 451-456 (Special Projects)
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