MCB 300 – Spring 2024 Syllabus

Course Website:  http://www.life.illinois.edu/mbc/300

When:  MWF 10:00 – 10:50 am

Where:  4029 Campus Instructional Facility

CRN:  38684

GENERAL DESCRIPTION OF MCB 300

Emphasizes fundamental concepts of microbiology, including nutrition, physiology, genetics, molecular biology, ecology and evolution of microorganisms, and their role in nature, human health and disease.

PRE-REQUISITES

MCB 250 and credit or concurrent registration in MCB 252 or consent of instructor.

Credit is not given for both MCB 300 and MCB 100.
Instructors
Dr. Bharathi Aravamudan
211 Burrill Hall (Advising Suite)
(217) TBA
ba23@illinois.edu
Virtual and In Person Office Hours: Tuesdays 1:00pm to 2:00pm in person and by Zoom

Second 20 Lectures
Dr. Steven Blanke
302 Burrill Hall
(217) 244-2412
sblanke@illinois.edu
Virtual Office Hours: Fridays, 10:00 am – 10:50 am by Zoom
Login information for these are in the syllabus and include the Meeting ID and the password.

Course Coordinator

Renee Alt
232A Burrill Hall
(217) 333-4306
rlalt@illinois.edu
Office Hours: By appointment only

Any questions about policies, CANVAS, enrollment, etc. should be emailed to the course coordinator. Please include your name and the course number for which you have a question (the coordinator works with multiple courses). When in doubt about directing a question, email the coordinator first and they will assist you.

Teaching Assistant

Diptatanu Das
ddas11@illinois.edu
Office Hours: Thursdays 2:30pm to 3:30pm in 101 Burrill Hall (Learning Center)
Office hours will start the week of January 29, 2024
Learning Outcomes
MCB 300

At the end of the course, through assignments, discussions, activities and assessments, students will be able to:

- Appreciate the tremendous diversity of the microbial world, in all its glory.
- Describe and contrast the cell structures and physiology of members of all 3 domains, the Bacteria, the Archaea, and the Eukarya.
- Explicate how microbes generate energy and synthesize the biomolecules needed for both cell structure and work through metabolic homeostasis.
- Provide details of how microbes regulate their metabolism and all functions required for life.
- Recognize why microbial diversity is important, and how diversity is achieved through evolution.
- Expound upon the importance of viruses in driving evolution.
- Wax poetic about the complexity of microbial community structures and how members of these communities work together to provide novel biological functionality.
- Give examples of how the human microbiome profoundly affects human health and disease.
- Communicate the basic nature and dynamics of infectious diseases at the public health level.
- Discuss the evolution of virulence.
- Present experimental strategies to identify pathogenic microbes responsible for causing disease.
- Explain and provide examples of virulence strategies associated with pathogenic microbes.
- Compare and contrast virulence strategies and diseases caused by bacteria, viruses, and pathogenic eukaryotes.
- Talk about next-generation strategies for combatting antimicrobial treatments.
- Convince your grandparents about the importance of vaccination for public health.
Textbook

The textbook for this course is *Brock: Biology of Microorganisms* by Madigan, Martinko, Stahl and Clark, Pearson Education, Inc., 2021 (16th edition). E-book versions (web or downloadable) can be purchased from the publisher (www.mypearsonstore.com) for less than the price of the hardcover version. A copy of the textbook is also on reserve at the Undergraduate Library and the Learning Center (101 Burrill Hall). **Note:** Although all material on exams will be covered in lecture, the textbook is strongly recommended reading for enhanced understanding of the course material.

Course Policies:

All students are assumed to have read and understood the "Code of Policies and Regulations Applying to All Students," University of Illinois, and will be expected to act accordingly. The Code is available online at: [http://www.admin.uiuc.edu/policy/code/index.html](http://www.admin.uiuc.edu/policy/code/index.html)

Disabilities and Religious Observances:

Please contact the course coordinator during the first week of classes to make requests for disability accommodations or observation of religious holidays.
Overall MCB 300 Class Structure

MCB 300 in Spring, 2024 will have a blended course structure:

(A) Lectures will be posted 48 hours in advance of class time in order for students to go over material and develop any questions that they may have. Students will be required to attend lecture on M/W/F in 4029 CIF. Attendance will be taken at every lecture using an iCard swipe in method. **NOTE: There will not be any additional course material presented during in-class sessions. All the material that you will be responsible for during course assessments will be contained in pre-recorded lectures.**

Learning opportunities during in-person class sessions, these are some of the items that maybe covered in Lecture:

- **30-40 minutes** (combination of 1 or more of the following)
  - Videos selected to augment learning material presented in pre-recorded class lectures
    - TED Talks
    - Howard Hughes Medical Institute
    - National Institutes of Health
  - Class discussion
    - PackBack “questions of the week”
    - current topics
  - Careers development tools and resources
  - Small-group Homework Sessions
    - Small groups of students may work together on open homework assignments
- **10-20 minutes**
  - Open office hours (Q & A)
**ASSESSMENTS: Grading Policies**

**Basis for Course Grades:**

Plus and minus letter grades will be used for semester grades.

The Grading Scale is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>960-1000</td>
</tr>
<tr>
<td>A</td>
<td>920-959</td>
</tr>
<tr>
<td>A-</td>
<td>880-919</td>
</tr>
<tr>
<td>B+</td>
<td>840-879</td>
</tr>
<tr>
<td>B</td>
<td>800-839</td>
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<tr>
<td>B-</td>
<td>760-799</td>
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<tr>
<td>C+</td>
<td>720-759</td>
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<tr>
<td>C</td>
<td>680-719</td>
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<tr>
<td>C-</td>
<td>640-679</td>
</tr>
<tr>
<td>D+</td>
<td>600-639</td>
</tr>
<tr>
<td>D</td>
<td>560-599</td>
</tr>
<tr>
<td>D-</td>
<td>520-559</td>
</tr>
<tr>
<td>F</td>
<td>less than 520</td>
</tr>
</tbody>
</table>

All point totals are estimates and may be altered slightly throughout the course of the semester. The point totals contained in the table represent the use of the plus/minus grading system coupled with a 4.0 grade point system. The University has assigned the grade point values shown for each letter grade. Students who earn the points shown (out of 1000 possible points) will be guaranteed the indicated letter grade. At semester's end, after the final exam, the faculty will analyze the course grade distribution, and may decrease, but will not increase the points needed for each grade.

**Point distribution:**

<table>
<thead>
<tr>
<th>Point Distribution</th>
<th>Possible Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Three exams (75 pts. each)</td>
<td>225 points possible</td>
</tr>
<tr>
<td>B. Final exam (75 pts.)</td>
<td>75 points possible</td>
</tr>
<tr>
<td>C. Eight homeworks (40 pts. each; drop 2)</td>
<td>240 points possible</td>
</tr>
<tr>
<td>D. 12 Packback assignments(12pts each; drop 2)</td>
<td>120 max points possible</td>
</tr>
<tr>
<td>E. 35 Lecture Refresher Quizzes(6pts each; drop 5)</td>
<td>180 max points possible</td>
</tr>
<tr>
<td>F. 38 Days Course participation points (5pts each; drop 10)</td>
<td>140 max points possible</td>
</tr>
<tr>
<td>G. 1st half group assignment</td>
<td>20 points possible</td>
</tr>
<tr>
<td><strong>Total possible points</strong></td>
<td><strong>1000 points total</strong></td>
</tr>
</tbody>
</table>
DESCRIPTION OF COURSE ASSESSMENTS

Exams

Four exams will be administered over the course of the semester, each covering 10 lectures. While the exams are NOT cumulative, it should be understood that material within each module of the course builds upon materials covered earlier in the semester. Exams will not be administered during the assigned class time (i.e., 10:00 – 10:50 am). See the course schedule for days/times of the exams.

In general, you will be responsible for any material covered, either spoken or written, in the recorded lecture. This includes a broad understanding of material covered in external videos, whose URLs are embedded within the recorded lectures. In addition, exam material may include questions from homework or the Lecture Refreshers Micro-quizzes. Occasionally, questions that are highlighted within Packback assignments, may also be used on exams.

Homework

There will be 8 homework assignments worth 40 points each. The lowest 2 homework scores may be dropped.

Each homework (worth 40 points total) will be composed of 12 multiple choice questions (2 points each, for a total of 24 points) and one or more short answer questions (16 points total). The lectures covered by each homework assignment can be found in the course calendar. Homework assignments will open at 11 am and close at 10 am on the dates indicated in the course calendar. **Homeworks will be completed in CANVAS (please see instructions for CANVAS below if you are not familiar with the system). Note: No make-up home-works will be given.**

Please make sure that you are able to access CANVAS in advance of your first homework. If you have problems please contact Renee Alt for assistance.

Packback

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online community where you can be fearlessly curious and ask open-ended questions to build on what we are covering in class and relate topics to real-world applications.

**Packback Requirements:**

Your participation on Packback will count toward 20% of your overall course grade. There will be 12 Packback assignments administered over the course of the semester, and due dates are indicated in the course calendar. Your 2 lowest grades, including any
missed assignments, will be dropped.

There will be Weekly Thursday at 11:59 pm Central Time (CT) and Weekly Saturday at 11:59 pm CT deadline for submissions. In order to receive full credit, you should submit the following per each deadline period:

- An original question (worth 6 points), due on the specified Thursdays at 11:59 pm, pertaining to material covered in the specified lectures.
- Original answers to two questions (3 points each) submitted by other students, due on the specified Saturdays at 11:59 pm

**How to Register on Packback:**
An email invitation will be sent to you from help@packback.co prompting you to finish registration. If you don’t receive an email (be sure to check your spam), you may register by following the instructions below:

1. Create an account by navigating to https://questions.packback.co and clicking “Sign up for an Account”
   Note: If you already have an account on Packback you can log in with your credentials.

2. Then enter our class community’s lookup key into the “Looking to join a community you don’t see here?” section in Packback at the bottom of the homepage.
   Community Lookup Key: b7bb37fb-4cba-441b-820b-0e67c5a472

3. Follow the instructions on your screen to finish your registration.

Packback may require a paid subscription. Refer to www.packback.co/product/pricing for more information.

**How to Get Help from the Packback Team:**
If you have any questions or concerns about Packback throughout the semester, please read their FAQ at help.packback.co. If you need more help, contact their customer support team directly at help@packback.co.

For a brief introduction to Packback Questions and why we are using it in class, watch this video: vimeo.com/packback/Welcome-to-Packback-Questions

Here are some additional videos to help you learn how to use Packback effectively:

- The Curiosity Score
- How to check my grades
- How to get help from Packback
- How to ask a question
You can also consult with the TA (Sabrina Abdulla) for questions about PackBack.

**Lecture Refresher Micro-Quizzes**

35 Lecture Refresher Micro-Quizzes will be administered during the semester, as indicated in the course calendar. Each Lecture Refresher Micro-Quiz will be worth 6 points total, and will be comprised of 1, 2, 3, or 6 questions covering the material from a single lecture, which will be due at 10:00 am on the morning of the following lecture. For example, your Micro-quiz for Lecture 2 on Lon Capa will be available at 11:00 am on Friday, January 20, 2024, and will be due at 10:00 am on Monday morning, January 23, 2024. Your 5 lowest Lecture Refresher Quiz grades will be dropped, and there will NOT be an opportunity to “make-up” missed quizzes.

**Assessment Policies: Re-grades**

If you believe that an answer was improperly graded on an exam or quiz you must fill out a copy of the "Request for Re-grade" form available on the "Forms" link on the course web site. This form must be completed and either electronically sent to Renee Alt (rlalt@illinois.edu) or a hard copy delivered to her office (232 Burrill Hall). **Please note:** you do not need to hand in the original assignment.

*All requests for re-grades must be made within one week of the day that the graded paper was returned.* Due dates for re-grades can be found under the "Regrade Due Dates" link on the website. The grader has the option to leave the score as is and comment further on the answer in question, accept the argument presented and award additional points or lower the original score if he/she finds additional mistakes that were missed during the first round of grading. The paper will be re-evaluated and returned to you within one week of its submission.

Final exams will not be returned to the student and will remain the property of the course, nor will answer keys be posted or made available in any way. Students may make an appointment with Renee Alt in order to view the final but it will stay in the procession of MCB staff. Final exams will not be subject to the MCB 300 regrade procedure, concerns should be directed to Renee Alt.
Week-by-Week Course Schedule: MCB 300, Spring 2024

WEEK 1

Date: Monday, January 15, 2024
  NO CLASS – Celebration of Martin Luther King Jr’s Birthday

Date: Wednesday, January 17, 2024
  Assignments Due: None
  New Assignments Open: None
  Videos to Watch:
    1. Course Introduction: Review of Class Information/Policies
    2. Introduction to PackBack Video
    3. Lecture 1: The essence of Microbiology – Setting the Table I – Stepping through the portal into the enormous world of the world’s smallest biological entities
  Supportive Reading: Chapter 1, Brock Biology of Microorganisms (16th Edition)

Date: Friday, January 19, 2024
  Assignments due: None
  New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #2 (Quiz #1/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, January 23, 2024
  Videos to Watch: Lecture 2: The essence of Microbiology – Setting the Table II
  Supportive Reading: Chapter 1, Brock Biology of Microorganisms (16th Edition)
  Virtual Office Hours: Dr. Vanderpool and Packback Introduction: 10:00-10:50am
    Meeting ID: 561 477 4714
    Password: 915830

Commented [VC1]: Is this correct, or should it be 15th edition?
WEEK 2

Date: Monday, January 22, 2024
Assignments Due: Lecture Refresher Micro-Quiz on Lecture #2 – due at 10:00 am (Quiz #1/35)
New Assignments Open:
1. Homework #1 opens at 11:00 am, Lectures 1-4, Closes at 10:00 am on
   Wednesday, February 1, 2024 (Lon Capa)
2. Lecture Refresher Micro-Quiz on content covered in Lecture #3 (Quiz #2/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on
   Wednesday, January 25, 2024
Videos to Watch: Lecture 3: The essence of Microbiology– Setting the Table III
Supportive Reading: Chapter 1, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 10:00 – 10:50 am: Group 2 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Wednesday, January 24, 2024
Assignments Due: Lecture Refresher Micro-Quiz on Lecture #3 – due at 10:00 am (Quiz #2/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in
Lecture #4 (Quiz #3/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, January 27, 2024
Videos to Watch: Lecture 4: The essence of Microbiology–Setting the Table IV
Supportive Reading: Chapter 2, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 9:00 – 9:50 am: Group 1 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, January 25, 2024
Assignments Due: Packback 1A: Single Question stemming from Lectures 1-4
due at 11:59 pm Central Time.
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, January 26, 2024
Assignments Due: Lecture Refresher Micro-Quiz on Lecture #4 – due at 10:00 am
(Quiz #3/35)
New Assignments Open:
1. Homework #2 opens at 11:00 am, Lectures 5-8, Closes at 10:00 am
   Wednesday, February 8, 2024 (Lon Capa)
2. Lecture Refresher Micro-Quiz on content covered in Lecture #5 (Quiz #4/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, September 2, 2022

Videos to Watch: Lecture 5: The essence of Microbiology—Setting the Table V
Supportive Reading: Chapter 2, Brock Biology of Microorganisms (16th Edition)

Virtual Office Hours: (Dr. Vanderpool) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

Date: Saturday, January 26, 2024
Assignments Due: Packback 1B: Responses to two questions stemming from Lectures 1-4 due at 11:59 pm Central Time

WEEK 3

Date: Monday, January 29, 2024
Assignments Due: Lecture Refresher Micro-Quiz covering material presented in Lecture #5 – due at 10:00 am (Quiz #4/35)

New Assignments Open: Lecture Refresher Micro-Quiz covering material presented in Lecture #6 (Quiz #5/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, February 1, 2024

Videos to Watch: Lecture 6: The essence of Microbiology—Setting the Table VI
Supportive Reading: Chapter 2, Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

Date: Wednesday, January 31, 2024
Assignments Due:
1. Homework #1, Lectures 1-4, CLOSES at 10:00 am
2. Lecture Refresher Micro-Quiz covering material presented in Lecture #6 – due at 10:00 am (Quiz #5/35)

New Assignments Open:
Lecture Refresher Micro-Quiz covering material presented in Lecture #7 (Quiz #6/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, February 3, 2024

Videos to Watch: Lecture 7: The essence of Microbiology – Setting the Table VII: Replication
Supportive Reading: Chapter 6, Brock Biology of Microorganisms (16th Edition), pages 172-176.
In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, February 1, 2024
Assignments Due: Packback 2A: Single Question inspired by the material covered in Lectures 5-7 due at 11:59 pm Central Time.
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, February 2, 2024
Assignments Due: Lecture Refresher Micro-Quiz covering material presented in Lecture #7 – due at 10:00 am (Quiz #6/35)
New Assignments Open: Lecture Refresher Micro-Quiz covering material presented in Lecture #8 (Quiz #7/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, February 6, 2024
Videos to Watch: Lecture 8: The essence of Microbiology – Setting the Table
VIII: Mechanisms of Genetic Regulation
In-Person Discussion: None
Virtual Office Hours: (Dr. Vanderpool) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

Date: Saturday, February 3, 2024
Assignments Due: Packback 2B: Responses to two questions stemming from Lectures 5-7 due at 11:59 pm Central time

WEEK 4

Date: Monday, February 5, 2024
Assignments Due: Lecture Refresher Micro-Quiz #8 on material covered in Lecture #8 – due at 10:00 am (#8) (Quiz #7/35)
New Assignments Open: Lecture Refresher Micro-Quiz covering material presented in Lecture #9 (Quiz #8/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, February 8, 2024
Videos to Watch: Lecture 9: The essence of Microbiology – Setting the Table
IX: Metabolic Regulation Central Metabolism
Supportive Reading: Chapter 3, Brock Biology of Microorganisms (16th Edition).
In-Person Discussion: 10:00 – 10:50 am: **Group 1 only:** Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

**Date: Wednesday, February 7, 2024**

**Assignments Due:**
1. Homework #2 CLOSES at 10:00 am.
2. Lecture Refresher Micro-Quiz #9 on material covered in Lecture #9 – due at 10:00 am (#9) (Quiz #8/35)

**New Assignments Open:** Lecture Refresher Micro-Quiz on content covered in Lecture #10 (Quiz #9/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, February 10, 2024

**Videos to Watch:** Lecture 10: The essence of Microbiology – Setting the Table

**Supportive Reading:** Chapter 3, *Brock Biology of Microorganisms (16th Edition)*

**In-Person Discussion:** 10:00 – 10:50 am: **Group 2 only:** Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

**Date: Thursday, February 8, 2024**

**Assignments Due:** Packback 3A: Single Question stemming from Lectures 8-10 due at 11:59PM CST.

**TA Office Hours:** Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

**Date: Friday, February 9, 2024**

**Assignments Due:** Lecture Refresher Micro Quiz on material covered in Lecture #10 – due at 10:00 am (Quiz #9/35)

**New Assignments Open:** Lecture Refresher Micro-Quiz on content covered in Lecture #11 (Quiz #10/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, February 15, 2024

**Videos to Watch:** Lecture 11: Parts and Processes – How Microbes Work I: Metabolism 3, Energy Generation – A

**Supportive Reading:** Chapter 3, *Brock Biology of Microorganisms (16th Edition)*

**Virtual Office Hours:** (Dr. Vanderpool) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

**Date: Saturday, February 10, 2024**

**Assignments Due:** Packback 3B: Responses to two questions stemming from Lectures 8-10 due at 11:59PM CST.
WEEK 5

Date: Monday, February 12, 2024
Assignments Due:
Exam #1 Covers Lectures 1-10, 7:00 pm – 9:00 pm
Please note that the room assignments for taking Exam 1 will be designated over the course of the semester.
New Assignments Open: None
Videos to Watch: None
Supportive Reading: None
In-Person Discussion: None

Date: Wednesday, February 14, 2024
Assignments Due: Lecture Refresher Micro Quiz on material covered in Lecture #11 – due at 10:00 am (Quiz #10/35)
New Assignments Open:
1. Homework #3 opens at 11:00 am, Lectures 11-14, Closes at 10:00 am on Wednesday, February 24, 2024 (Lon Capa)
2. Lecture Refresher Micro-Quiz on content covered in Lecture #12 (Quiz #11/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, February 17, 2024
Supportive Reading: Chapter 3, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: None

Date: Thursday, February 15, 2024
Assignments Due: Packback 4A: Single Question stemming from Lectures 11-12 due at 11:59 pm CST.
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, February 16, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #12 – due at 10:00 am (Quiz #11/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #13 (Quiz #12/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, February 20, 2024
Supportive Reading: Chapter 3, Brock Biology of Microorganisms (16th Edition)
Virtual Office Hours: (Dr. Vanderpool) 10:00-10:50am  
Meeting ID: 561 477 4714  
Password: 915830

Date: Saturday, February 17, 2024  
Assignments Due: Packback 4B: Responses to two questions stemming from Lectures 11-12 due at 11:59PM CST

WEEK 6

Date: Monday, February 19, 2024  
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #13– due at 10:00 am (Quiz #12/35)  
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #14 (Quiz #13/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, February 22, 2024  
Videos to Watch: Lecture 14: Parts and Processes – How Microbes Work– I: Stress Responses  
Supportive Reading: Chapter 7, Brock Biology of Microorganisms (16th Edition), pages 218-220.  
In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

Date: Wednesday, February 21, 2024  
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #14– due at 10:00 am (Quiz #13/35)  
New Assignments Open:  
1. Homework #4 opens at 11:00 am, Lectures 15-18, Closes at 10:00 am on Monday, March 3, 2024 (Lon Capa)  
2. Lecture Refresher Micro-Quiz on content covered in Lecture #15 (Quiz #14/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, February 24, 2024  
In-Person Discussion: 10:00 – 10:50 am: Group 2 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, February 22, 2024  
Assignments Due: Packback 5A: Single Question stemming from Lectures 13-15 due at 11:59PM CST.
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, February 23, 2024

Assignments Due:
1. Homework #3 CLOSES at 10:00 am
2. Lecture Refresher Micro-Quiz on material covered in Lecture #16– due at 10:00 am (Quiz #14/35)

New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #16 (Quiz #15/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, February 27, 2024

Videos to Watch: Lecture 16: Establishment of microbial communities—I: Origins of Life – Where it all began…

Supportive Reading: Chapter 13, *Brock Biology of Microorganisms* (16th Edition)

In-Person Discussion: None

Virtual Office Hours: (Dr. Vanderpool) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

Date: Saturday, February 24, 2024

Assignments Due: Packback 5B: Responses to two questions stemming from Lectures 13-15 due at 11:59PM CST

WEEK 7

Date: Monday, February 26, 2024

Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #16– due at 10:00 am (Quiz #15/35)

New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #17 (Quiz #16/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, March 1, 2024

Videos to Watch: Lecture 17: Establishment of microbial communities–II: The Role of Evolution in Establishing Community Structure

Supportive Reading: Chapter 13, *Brock Biology of Microorganisms* (16th Edition)

In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

Date: Wednesday, February 28, 2024

Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #17– due at 10:00 am (Quiz #16/35)
**New Assignments Open:** Lecture Refresher Micro-Quiz on content covered in Lecture #18 (Quiz #17/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, March 3, 2024

**Videos to Watch:** Lecture 18: Establishment of microbial communities—I: The Role of Evolution in Establishing Community Structure

**Supportive Reading:** Chapter 13, *Brock Biology of Microorganisms* (16th Edition)

**In-Person Discussion:** 10:00 – 10:50 am; **Group 2 only:** Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

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**Date:** Thursday, February 29, 2024

**Assignments Due:** Packback 6A: Single Question stemming from Lectures 16-18 due at 11:59PM CST.

**TA Office Hours:** Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

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**Date:** Friday, March 1, 2024

**Assignments Due:**
1. Homework #4 CLOSES at 10:00 am
2. Lecture Refresher Micro-Quiz on material covered in Lecture #18– due at 10:00 am (Quiz #17/35)

**New Assignments Open:** Lecture Refresher Micro-Quiz on content covered in Lecture #19 (Quiz #18/35) opens at 10:00 am on Lon Capa; Closes at 9:00 am on Monday, March 6, 2024

**Videos to Watch:** Lecture 19: Establishment of microbial communities IV: Rapid Change through Horizontal Gene Transfer

**Supportive Reading:** Chapter 13, *Brock Biology of Microorganisms* (16th Edition)

**In-Person Discussion:** None

**Virtual Office Hours:** (Dr. Vanderpool) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

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**Date:** Saturday, March 2, 2024

**Assignments Due:** Packback 6B: Responses to two questions stemming from Lectures 16-18 due at 11:59PM CST

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**WEEK 8**

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**Date:** Monday, March 4, 2024

**Assignments Due:** Lecture Refresher Micro-Quiz on material covered in Lecture #19– due at 9:00 am (Quiz #18/35)
New Assignments Open: None
Videos to Watch: Lecture 20: Establishment of microbial communities V:
   Unmasking the invisible majority through culture independent techniques.
Supportive Reading: Chapter 19, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: None

Date: Wednesday, March 6, 2024
Assignments Due:
   Exam #2 Covers Lectures 11-20, 7:00 pm – 9:00 pm
   Please note that the room assignments for taking Exam 2 will be designated over the course of the semester.
New Assignments Open: None
Videos to Watch: None
Supportive Reading: none

Date: Thursday, March 7, 2024
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, March 8, 2024
Assignments Due: none
New Assignments Open: Homework #5 opens at 11:00 am, Lectures 21-24, Closes at 9:00 am on Wednesday, October 26, 2022 (Lon Capa)
Videos to Watch: Lecture 21: Establishment of microbial communities VI:
   Characterizing the forces that help define and shape the diversity of microbial community structures
Supportive Reading: Chapters 1, 19, 20 Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: None
Virtual Office Hours: No Instructional office hours this week.

WEEK 9
Saturday, March 9, 2024 through Sunday, March 17, 2024
Spring Break 2024!!

WEEK 10
Date: Monday, March 18, 2024
Assignments Due: None

Commented [VC2]: Is this correct, or should it be 15th edition?
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #22 (Quiz #19/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, March 22, 2024


Supportive Reading: Chapter 24 Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

Date: Wednesday, March 19, 2024
Assignment Due: Lecture Refresher Micro-Quiz on material covered in Lecture #22 – due at 10:00 am (Quiz #19/35)

New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #23 (Quiz #20/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, March 24, 2024

Videos to Watch: Lecture 23: Establishment of microbial communities VIII: The human gut microbiome in human health and disease – Part A

Supportive Reading: Chapter 24 Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: 10:00 – 10:50 am: Group 2 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, March 20, 2024
Assignment Due: Packback 7A: Single Question stemming from Lectures 21-22 due at 11:59 CST.

TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, March 21, 2024
Assignment Due: Lecture Refresher Micro-Quiz on material covered in Lecture #23 – due at 10:00 am (Quiz #20/35)

New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #24 (Quiz #21/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, March 27, 2024


Supportive Reading: Chapter 24 Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: None

Virtual Office Hours: (Dr. Blanke) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830
WEEK 11

Date: Saturday, March 22, 2024
Assignments Due: Packback 7B: Responses to two questions stemming from Lectures 21-23 due at 11:59 CST

Date: Monday, March 24, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #24– due at 10:00 am (Quiz #21/35)
New Assignments Open:
1. Homework #6 opens at 11:00 am, Lectures 25-28, Closes on 10:00 am Monday, November 4, 2022 (Lon Capa)
2. Lecture Refresher Micro-Quiz on content covered in Lecture #25 (Quiz #22/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, March 29, 2024
Videos to Watch: Lecture 25: Pathogenic Microbe-Host Interactions I: Introduction to infectious diseases and microbial pathogenesis: The good, the bad, and the ugly…
Supportive Reading: Chapter 30 Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

Date: Wednesday, March 26, 2024
Assignments Due:
1. Homework #5 CLOSES at 10:00 am
2. Lecture Refresher Micro-Quiz on material covered in Lecture #25– due at 10:00 am (Quiz #22/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #26 (Quiz #23/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, March 31, 2024
Videos to Watch: Lecture 26: Pathogenic Microbe-Host Interactions II: Host barriers to microbial interactions…Barriers, fortresses, moats, artillery
Supportive Reading: Chapter 26 Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 10:00 – 10:50 am: Group 2 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, March 27, 2024
Assignments Due: Packback 8A: Single Question stemming from Lectures 24-26 due at 11:59 CST.
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, March 28, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #26– due at 10:00 am (Quiz #23/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #27 (Quiz #24/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, April 3, 2024
Videos to Watch: Lecture 27: Pathogenic Microbe-Host Interactions-III: Host innate defenses to pathogenic microbes…. sentinels, supply lines, and cluster weapons.
Supportive Reading: Chapter 26 Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: None
Virtual Office Hours: (Dr. Blanke) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

Date: Saturday, March 29, 2024
Assignments Due: Packback 8B: Responses to two questions stemming from Lectures 24-26 due at 11:59 CST.

WEEK 12

Date: Monday, April 1, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #27– due at 10:00 am (Quiz #24/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #28 (Quiz #25/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, April 5, 2024
Videos to Watch: Lecture 28: Pathogenic Microbe-Host Interactions-IV: Host adaptive defenses to pathogenic microbes…artificial intelligence, machine learning, smart devices-Part A
Supportive Reading: Chapter 27, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

Date: Wednesday, April 3, 2024
Assignments Due:
1. Homework #6 CLOSES at 10:00 am
2. Lecture Refresher Micro-Quiz on material covered in Lecture #28– due at 10:00 am (Quiz #25/35)

New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #29 (Quiz #26/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, April 7, 2024

Videos to Watch: Lecture 29: Pathogenic Microbe-Host Interactions-V: Host adaptive defenses to pathogenic microbes… artificial intelligence, machine learning, smart devices-Part B

Supportive Reading: Chapter 27, Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: 10:00 – 10:50 am: Group 2 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, April 4, 2024

Assignments Due: Packback 9A: Single Question stemming from Lectures 27-29 due at 11:59 CST.

TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, April 5, 2024

Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #29– due at 10:00 am (Quiz #26/35)

New Assignments Open: None

Videos to Watch: Lecture 30: Pathogenic Microbe-Host Interactions-VI: Koch’s Postulates - How to detect and assign a microbe as the causative agent of infectious disease.

Supportive Reading: Chapter 1, Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: None

Virtual Office Hours: (Dr. Blanke) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

Date: Saturday, April 6, 2024

Assignments Due: Packback 9B: Responses to two questions stemming from Lectures 27-29 due at 11:59 CST

WEEK 13

Date: Monday, April 8, 2024

Assignments Due:
Exam #3 Covers Lectures 21-30, 7:00 pm – 9:00 pm

Please note that the room assignments for taking Exam 3 will be designated over the course of the semester.

New Assignments Open: None
Videos to Watch: None
Supportive Reading: none

Date: Wednesday, April 10, 2024
Assignments Due: None
New Assignments Open:
1. Homework #7 opens at 11:00 am, Lectures 31-34, Due at 10:00 am on Wednesday, November 30, 2022 (Lon Capa)
2. Lecture Refresher Micro-Quiz on content covered in Lecture #31 (Quiz #27/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, April 14, 2024
Videos to Watch: Lecture 31: Pathogenic Microbe-Host Interactions-VII: Studying the Virulence of Pathogenic Microbes – How to Study Microbial Pathogenesis
Supportive Reading: Chapter 25, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: None

Date: Thursday, April 11, 2024
Assignments Due: Packback 10A: Single Question stemming from Lectures 30-31 due at 11:59 CST.
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, April 12, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #31 – due at 10:00 am (Quiz #27/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #32 (Quiz #28/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, April 17, 2024
Videos to Watch: Lecture 32: Pathogenic Microbe-Host Interactions-VIII: Establishing an Infection within the Host – Immune Evasion and Colonization and Transmission – Part A.
Supportive Reading: Chapter 25, Brock Biology of Microorganisms (16th Edition)
In-Person Meeting: None
Virtual Office Hours: (Dr. Blanke) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

Date: Saturday, April 13, 2024

Commented [VC12]: Is this correct, or should it be 15th edition?
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Assignments Due: Packback 10B: Responses to two questions stemming from Lectures 30-31 due at 11:59 CST

WEEK 14

Date: Monday, April 15, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #32 – due at 10:00 am (Quiz #28/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #33 (Quiz #29/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, April 19, 2024
Videos to Watch: Lecture 33: Pathogenic Microbe-Host Interactions- IX: Establishing an Infection within the Host – Immune Evasion, Colonization, and Transmission – Part B.
Supportive Reading: Chapter 25, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 10:00 – 10:50 am: Group 1 only: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

Date: Wednesday, April 16, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #33 – due at 10:00 am (Quiz #29/35)
New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #34 (Quiz #30/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, April 21, 2024
Supportive Reading: Chapter 25, Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 10:00 – 10:50 am: Group 2 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, April 17, 2024
Assignments Due: Packback 11A: Single Question stemming from Lectures 32-34 due at 11:59 CST.
TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, April 18, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #34 – due at 10:00 am (Quiz #30/35)
New Assignments Open:

Commented [VC14]: Is this correct, or should it be 15th edition?
Commented [VC15]: Is this correct, or should it be 15th edition?
1. Homework #8 opens at 11:00 am, Lectures 35-38, Closes at 10:00 am on Monday, December 5, 2022 (Lon Capa)
2. Lecture Refresher Micro-Quiz on content covered in Lecture #35 (Quiz #31/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, April 24, 2024

**Videos to Watch:** Lecture 35: Pathogenic Microbe-Host Interactions- XI: Remodeling the Host into a Suitable Infection Microenvironment – the Amazing World of Bacterial Toxins.

**Supportive Reading:** Chapter 25, *Brock Biology of Microorganisms* (16th Edition) In-Person Meeting: None

**Virtual Office Hours:** (Dr. Blanke) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

**Date:** Saturday, April 19, 2024
**Assignments Due:** Packback 11B: Responses to two questions stemming from Lectures 32-34 due at 11:59 CST

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**WEEK 15**

**Date:** Monday, April 22, 2024

**Assignments Due:**
- Lecture Refresher Micro-Quiz on material covered in Lecture #35– due at 10:00 am (Quiz #31/35)
- **New Assignments Open:** Lecture Refresher Micro-Quiz on content covered in Lecture #36 (Quiz #32/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, April 26, 2024

**Videos to Watch:** Lecture 36: Pathogenic Microbe-Host Interactions-XII: Fantastic Effectors and Where to Find Them.

**Supportive Reading:** Chapter 25, *Brock Biology of Microorganisms* (16th Edition)

**In-Person Discussion:** 10:00 – 10:50 am: **Group 1 only:** Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

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**Date:** Wednesday, April 24, 2024

**Assignments Due:**
1. Homework #7 CLOSES at 10:00 am
2. Lecture Refresher Micro-Quiz on material covered in Lecture #36– due at 10:00 am (Quiz #32/35)

**New Assignments Open:** Lecture Refresher Micro-Quiz on content covered in Lecture #37 (Quiz #33/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Friday, April 28, 2024

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Commented [VC16]: Is this correct, or should it be 15th edition?
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Supportive Reading: Chapter 5, Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: 10:00 – 10:50 am: Group 2 only: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

Date: Thursday, April 25, 2024
Assignments Due: Packback 12A: Single Question stemming from Lectures 35-37 due at 11:59 CST.

TA Office Hours: Anubhav Basu: 2:30pm to 3:30pm in the MCB Learning Center

Date: Friday, April 26, 2024
Assignments Due: Lecture Refresher Micro-Quiz on material covered in Lecture #37 – due at 10:00 am (Quiz #33/35)

New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #38 (Quiz #34/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Monday, May 1, 2024

Videos to Watch: Lecture 38: Micromodule B: Eukaryotic Pathogens: Wayward Fungi, and a Hypothesis.

Supportive Reading: Chapter 18, Brock Biology of Microorganisms (16th Edition)

In-Person Discussion: None

Virtual Office Hours: (Dr. Blanke) 10:00-10:50am
Meeting ID: 561 477 4714
Password: 915830

Date: Saturday, April 27, 2024
Assignments Due: Packback 12B: Responses to two questions stemming from Lectures 35-37 due at 11:59 CST

Week 16

Date: Monday, April 29, 2024
Assignments Due
1. Homework #8 CLOSES at 10:00 am
2. Lecture Refresher Micro-Quiz on material covered in Lecture #38– due at 10:00 am (Quiz #34/35)

New Assignments Open: Lecture Refresher Micro-Quiz on content covered in Lecture #39 (Quiz #35/35) opens at 11:00 am on Lon Capa; Closes at 10:00 am on Wednesday, May 3, 2024
Videos to Watch: Lecture 39: Micromodule C: Controlling Bacterial Infections…or are we?: The Life and Death Business of Generating Effective Antimicrobials in the Face of Antimicrobial Resistance.
Supportive Reading: Chapter 8 (pages 255-260), Chapter 28 (pages 894-906), Brock Biology of Microorganisms (16th Edition)
In-Person Discussion: 10:00 – 10:50 am: **Group 1 only**: Attend your assigned discussion section for last names A-L in 4029 Campus Instructional Facility

**Date: Wednesday, May 1, 2024**
**Assignments Due**: Lecture Refresher Micro-Quiz on material covered in Lecture #39—due at 10:00 am (Quiz #35/35)
**New Assignments Open**: None
**Videos to Watch**: Lecture 40: Micromodule D: Vaccines as the Real Game Changer: Next Generation Strategies to Prevent Microbial Diseases in Humans.
**Supportive Reading**: Chapter 28 (pages 889-894), Brock Biology of Microorganisms (16th Edition)
**In-Person Discussion**: 10:00 – 10:50 am: **Group 2 only**: Attend your assigned discussion section for last names M-Z in 4029 Campus Instructional Facility

**Date: Thursday, May 2, 2024**
Reading Day

**Week 17**
**Exam #4: Covering Lectures 31-40**
**Date**: Friday, May 10
**Time**: 1:30pm to 4:30pm
**Place**: TBA