School of Molecular & Cellular Biology

MCB 424, Spring 2024
Microbial Biochemistry, 3 Credit Hours

Instructor
William Metcalf
metcalf@illinois.edu
B415 CLSL
Office Hours: Mondays 4:00 – 5:00 PM, or by appointment.

Teaching Assistant
Divyanshi
divyans2@illinois.edu
Learning Center, Burrill Hall
Office Hours: Wednesdays, 8:50-9:50, or by appointment.

Class Meeting Schedule
M, W, F 10:00 – 10:50 PM; 140 Burrill Hall

Course Overview and Description
The course examines the biochemical and physiological adaptations that allow microbes to compete and succeed in diverse environments. Emphasis is placed on the role of metabolism in the living organism and on the specific evolutionary advantages conferred by different metabolic strategies.

Course Prerequisites, Requirements met (general education, major, minor)
MCB 250 and MCB 354 or MCB 450, or consent of instructor.

Student Learning Outcomes
At the end of the course, through assignments, discussions, activities and assessments, students will be able to:
• Understand the chemical logic of microbial metabolism
• Understand how microbes conserve energy in oxic and anoxic environments
• Understand how microbial metabolism influences adaptation to specific environments
• Apply knowledge of metabolism and biochemistry to predict new metabolic pathways

Course Text/Materials Information
Suggested Text:
The physiology and biochemistry of prokaryotes, by David White, Oxford University Press

Other useful texts:
Assigned Reading: Periodic reading will be assigned as the course progresses. These will be from a variety of sources, including the recommended text cited above. Whenever possible I will have links for these readings on the course web site.

Course Website
http://www.life.illinois.edu/mcb/424
The web page contains lecture slides, problem sets and problem set answers.

Important: the lecture slides are NOT meant as a substitute for class notes. If you rely on these as your sole source of class material, you are unlikely to do well on the exams.

Grading Information and Breakdown

Option I: An initial grade based on 400 total points will be assigned after the third exam. If the student is satisfied with this grade, then the Final Exam is not required.

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 exams</td>
<td>300</td>
</tr>
<tr>
<td>6 problem sets</td>
<td>60</td>
</tr>
<tr>
<td>10 muddiest points</td>
<td>10</td>
</tr>
<tr>
<td>1 quiz</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
</tr>
</tbody>
</table>

Option II: If the student is not satisfied with the initial grade, the final exam may be taken. In this case, the grade will be based on 600 total points. The percentage score required to achieve each grade will be identical to that used for Option I. You cannot lower the initial grade by taking the final.

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 exams</td>
<td>300</td>
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<tr>
<td>10 muddiest points</td>
<td>10</td>
</tr>
<tr>
<td>1 quiz</td>
<td>30</td>
</tr>
<tr>
<td>Final exam</td>
<td>200</td>
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<tr>
<td>Total</td>
<td>600</td>
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</table>

Problem Sets: Six problem sets will be given over the semester, two for each third of the course. Each will be worth 10 points. Grading will be based on whether an effort was made to solve the problems, not on whether the right answer was obtained. Partially complete homework will receive partial credit. Problem sets will be due at midnight on the dates indicated below. They can be turned in during class, or in my mailbox in B103, CLSL, or via email. If submitted by email, your answers must be compiled into a single PDF document. “Cut and paste” answers from other sources will not receive credit. Answers will be posted online after the due date. Fully completed, late homework will be accepted prior to the last day of class, but will only be worth 5 points each. (Print-outs and copy-paste of posted answers will NOT be accepted for late credit.) No partial credit will be given for late homework.

February 2          Problem set #1
February 14         Problem set #2
March 6             Problem set #3
This is a tentative schedule and may change depending on the pace of lectures.

Muddiest Point: Students often feel that certain topics covered in class are not well explained or confusing. When this occurs, please write a short email (1-2 sentences) asking that this be explained again. Send these to me (metcalf@illinois.edu) with the subject heading “Muddiest point”. Each Monday at the beginning of class the most commonly asked question(s) will be discussed. To encourage participation in this feedback exercise, these will be worth 1 point each, up to a maximum of 10 points. You can submit as many questions as you like, but you will receive credit for a maximum of one point per week (i.e. you can’t submit ten questions in the last week of class to improve your grade).

Quiz: One take-home quiz covering material you should have learned previously in prerequisite courses will be given on January 26, in class. The answers are available online prior to the quiz.

Exams: All exams will be taken during class on the dates indicated below. Questions will be in essay/problem solving format, similar to the questions in the problem sets. Makeup Exams will not be given, if you miss an exam you must take the final, which will then count the same as a regular exam. Grading option II is not available if you miss a test.

- February 16 Exam #1
- March 27 Exam #2
- April 29 Exam #3

This is a tentative schedule and may change depending on the pace of lectures.

Optional Final Exam: Friday May 10, 1:30-4:30, 140 Burill Hall
<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Lecture #</th>
<th>Topic</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>1/17/24</td>
<td>10:00 AM</td>
<td>1</td>
<td>Class policies/Introduction to Microbial Diversity</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>1/19/24</td>
<td>10:00 AM</td>
<td>2</td>
<td>Introduction to Microbial Diversity</td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td>1/22/24</td>
<td>10:00 AM</td>
<td>3</td>
<td>Phylogeny/Classification of Prokaryotes</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>1/24/24</td>
<td>10:00 AM</td>
<td>4</td>
<td>Phylogeny/Classification of Prokaryotes</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>1/26/24</td>
<td>10:00 AM</td>
<td>5</td>
<td>Phylogeny/Classification of Prokaryotes/Quiz (in class)</td>
<td>Quiz (in class)</td>
</tr>
<tr>
<td>Monday</td>
<td>1/29/24</td>
<td>10:00 AM</td>
<td>6</td>
<td>Basic Microbial Physiology</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>1/31/24</td>
<td>10:00 AM</td>
<td>7</td>
<td>Basic Microbial Physiology/Thermodynamics and Glycolysis</td>
<td></td>
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<tr>
<td>Thursday</td>
<td>2/1/24</td>
<td>5:00 PM</td>
<td></td>
<td>Problem Set 1 help session</td>
<td></td>
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<tr>
<td>Friday</td>
<td>2/2/24</td>
<td>10:00 AM</td>
<td>8</td>
<td>Pyruvate Oxidation and TCA Cycle/Electron transport</td>
<td>Problem set #1 due</td>
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<tr>
<td>Monday</td>
<td>2/5/24</td>
<td>10:00 AM</td>
<td>9</td>
<td>Electron Transport</td>
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<tr>
<td>Wednesday</td>
<td>2/7/24</td>
<td>10:00 AM</td>
<td>10</td>
<td>Energetics of Redox Reactions</td>
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<tr>
<td>Friday</td>
<td>2/9/24</td>
<td>10:00 AM</td>
<td>11</td>
<td>Energetics of Redox Reactions/ATPase</td>
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<tr>
<td>Monday</td>
<td>2/12/24</td>
<td>10:00 AM</td>
<td>12</td>
<td>Biosynthesis and Metabolic Diversity</td>
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<tr>
<td>Tuesday</td>
<td>2/13/24</td>
<td>5:00 PM</td>
<td>13</td>
<td>Anaplerotic Reactions</td>
<td>Problem set #2 due</td>
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<td>Thursday</td>
<td>2/15/24</td>
<td>5:00 PM</td>
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<td>Exam 1 Help Session</td>
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<tr>
<td>Friday</td>
<td>2/16/24</td>
<td>10:00 AM</td>
<td></td>
<td>Exam #1 (in class)</td>
<td>Exam #1 (in class)</td>
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<tr>
<td>Monday</td>
<td>2/19/24</td>
<td>10:00 AM</td>
<td>14</td>
<td>Catabolism of Polymers</td>
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<tr>
<td>Wednesday</td>
<td>2/21/24</td>
<td>10:00 AM</td>
<td>15</td>
<td>Catabolism of Polymers/Hydrocarbons</td>
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<tr>
<td>Friday</td>
<td>2/23/24</td>
<td>10:00 AM</td>
<td>16</td>
<td>Hydrocarbons and the Anaerobic World</td>
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<tr>
<td>Monday</td>
<td>2/26/24</td>
<td>10:00 AM</td>
<td>17</td>
<td>Fermentation I</td>
<td></td>
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<tr>
<td>Wednesday</td>
<td>2/28/24</td>
<td>10:00 AM</td>
<td>18</td>
<td>Fermentation I</td>
<td></td>
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<tr>
<td>Friday</td>
<td>3/1/24</td>
<td>10:00 AM</td>
<td>19</td>
<td>Fermentation II</td>
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<tr>
<td>Monday</td>
<td>3/4/24</td>
<td>10:00 AM</td>
<td>20</td>
<td>Fermentation II</td>
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<tr>
<td>Tuesday</td>
<td>3/5/24</td>
<td>5:00 PM</td>
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<td>Problem Set 3 help session</td>
<td>Problem set #3 due</td>
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<tr>
<td>Wednesday</td>
<td>3/6/24</td>
<td>10:00 AM</td>
<td>21</td>
<td>Fermentation III</td>
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<tr>
<td>Friday</td>
<td>3/8/24</td>
<td>10:00 AM</td>
<td>22</td>
<td>Fermentation III</td>
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<tr>
<td>Monday</td>
<td>3/11/24</td>
<td>10:00 AM</td>
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<td>No Class, Spring Break</td>
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<tr>
<td>Wednesday</td>
<td>3/13/24</td>
<td>10:00 AM</td>
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<td>No Class, Spring Break</td>
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<tr>
<td>Friday</td>
<td>3/15/24</td>
<td>10:00 AM</td>
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<td>No Class, Spring Break</td>
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<tr>
<td>Monday</td>
<td>3/18/24</td>
<td>10:00 AM</td>
<td>23</td>
<td>Decarboxylation/Aerobic respiration: denitrification</td>
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<tr>
<td>Wednesday</td>
<td>3/20/24</td>
<td>10:00 AM</td>
<td>24</td>
<td>Anaerobic respiration: denitrification</td>
<td></td>
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<tr>
<td>Thursday</td>
<td>3/21/24</td>
<td>5:00 PM</td>
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<td>Problem Set 4 help session</td>
<td>Problem set #4 due</td>
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<tr>
<td>Friday</td>
<td>3/22/24</td>
<td>10:00 AM</td>
<td>25</td>
<td>Anaerobic respiration: denitrification/metals</td>
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<tr>
<td>Monday</td>
<td>3/25/24</td>
<td>10:00 AM</td>
<td>26</td>
<td>Anaerobic respiration: metals</td>
<td>Problem set #5 due</td>
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<tr>
<td>Tuesday</td>
<td>3/26/24</td>
<td>5:00 PM</td>
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<td>Exam 2 Help Session</td>
<td>Exam #2 (in class)</td>
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<tr>
<td>Wednesday</td>
<td>3/27/24</td>
<td>10:00 AM</td>
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<tr>
<td>Friday</td>
<td>3/29/24</td>
<td>10:00 AM</td>
<td>27</td>
<td>Anaerobic respiration: sulfur</td>
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<tr>
<td>Monday</td>
<td>4/1/24</td>
<td>10:00 AM</td>
<td>28</td>
<td>Anaerobic respiration: sulfur/Acetogenesis</td>
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<tr>
<td>Wednesday</td>
<td>4/3/24</td>
<td>10:00 AM</td>
<td>29</td>
<td>Acetogenesis/Methanogenesis</td>
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<tr>
<td>Friday</td>
<td>4/5/24</td>
<td>10:00 AM</td>
<td>30</td>
<td>Methanogenesis</td>
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</tr>
<tr>
<td>Monday</td>
<td>4/8/24</td>
<td>10:00 AM</td>
<td>31</td>
<td>Methanogenesis/Syntrophy</td>
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<tr>
<td>Tuesday</td>
<td>4/9/24</td>
<td>5:00 PM</td>
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<td>Problem Set 5 help session</td>
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<tr>
<td>Wednesday</td>
<td>4/10/24</td>
<td>10:00 AM</td>
<td>32</td>
<td>Syntrophy</td>
<td>Problem set #6 due</td>
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<tr>
<td>Friday</td>
<td>4/12/24</td>
<td>10:00 AM</td>
<td>33</td>
<td>Syntrophy/Aerobic Ecosystems</td>
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<tr>
<td>Monday</td>
<td>4/15/24</td>
<td>10:00 AM</td>
<td>34</td>
<td>Aerobic Methanotrophs/Methylothrophs</td>
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</tr>
<tr>
<td>Wednesday</td>
<td>4/17/24</td>
<td>10:00 AM</td>
<td>35</td>
<td>Chemolithotrophic Growth</td>
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<tr>
<td>Friday</td>
<td>4/19/24</td>
<td>10:00 AM</td>
<td>36</td>
<td>Chemolithotrophic Growth</td>
<td></td>
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<tr>
<td>Monday</td>
<td>4/22/24</td>
<td>10:00 AM</td>
<td>37</td>
<td>Photosynthesis I</td>
<td></td>
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<tr>
<td>Wednesday</td>
<td>4/24/24</td>
<td>10:00 AM</td>
<td>38</td>
<td>Photosynthesis II</td>
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<td>Thursday</td>
<td>4/25/24</td>
<td>5:00 PM</td>
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<td>Problem Set 6 Exam 3 help session</td>
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<tr>
<td>Friday</td>
<td>4/26/24</td>
<td>10:00 AM</td>
<td>39</td>
<td>Photosynthesis II</td>
<td>Problem set #7 due</td>
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<td>Monday</td>
<td>4/29/24</td>
<td>10:00 AM</td>
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<td>Exam #3 (in class)</td>
<td>Exam #3 (in class)</td>
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<tr>
<td>Wednesday</td>
<td>5/1/24</td>
<td>10:00 AM</td>
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<td>Grades/in class time for ICES forms</td>
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<td>Friday</td>
<td>5/10/24</td>
<td>1:30-4:30</td>
<td></td>
<td>Optional Final Exam</td>
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MCB Curriculum Policies

For non-academic campus assistance and support:
- See Office of Diversity, Equity and Access (ODEA) information at the end of this document.

Student Advocacy Resources:
- For student-centered advocacy programs and services visit: mcb.illinois.edu/undergrad/advising/resources.

Contacting MCB Course Personnel:
- MCB course personnel are more than happy to assist students.
- Emails to instructors, TAs, or course coordinators will only be answered if they come from an @illinois.edu account. We will only use this account in order to protect your educational information and profile. As a student, please remember that when you email a staff member, it is important to include all pertinent information so that we can assist you in the most efficient and effective manner possible. This information includes:
  o The course rubric in the subject line
  o Your full first and last name
  o Your NetID (the first part of your illinois.edu email account)
  o Your UIN (9 digit number that can be found on your ICard)
  o The course that you are concerned about (the course personnel often work with multiple courses)
  o Your section letter/number
  o The previous email “thread” or previous communicated information pertinent to the situation
- Your cooperation will help us respond much more quickly to your concerns.

Policies:
- Unfamiliarity with policies is not a defense for not knowing what they cover.

Adding the Course after the Semester Starts:
- We understand that the University has an add deadline 10 days into the semester, but the University lets individual courses and/or programs determine their policies for late adds. We feel that students who choose to add a course late do so at their own discretion with knowledge that there may be points lost in the process.

Religious Observances and Practices:
- Students are required to submit the Request for Accommodation for Religious Observances Form (which can be found at www.odos.illinois.edu/.../Religious_Observance_Accommodation_Request_Form.docx) to their instructors and the Office of the Dean of Students requesting accommodation by the end of the second week of the course. Requests that are not submitted within this time frame may not be granted. Information about accommodations can be found in the Student Code: http://studentcode.illinois.edu/.
**DRES Accommodations:**

- We are committed to providing a learning environment where our students can succeed. If you require special accommodations, please contact us and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES, you may visit 1207 S. Oak Street, Champaign, call 217.333.4603, or email disability@illinois.edu. We will try to meet all accommodations once the process has started. Please note that accommodations are not retroactive to the beginning of the semester, but begin the day you contact your professor, instructor or coordinator with a current letter of accommodation from DRES.
- If a student believes that they need DRES accommodations, they should contact DRES at disability@illinois.edu.

**Class Absences:**

- Regular class attendance is expected of all students at the University. ([http://odos.illinois.edu/studentAssistance/absence/revised_code.asp](http://odos.illinois.edu/studentAssistance/absence/revised_code.asp))
- If you find yourself ill, you must submit confirmation of a visit with a medical practitioner within 24 hours of your absence. The confirmation cannot be provided by a relative, even if the relative is a practitioner.
- The Office of the Dean of Students will only provide informative letters to instructors for protracted illness of 3 or more days, certain emergencies and to be present during the serious illness of immediate family members (parents, legal guardian, spouse/partner, siblings, children, or grandparents). These letters do not excuse you from class but merely provide information for the instructor to consider with regard to excusing the absence and permitting make-up work. Students must request absence letters from the Office of the Dean of Students after the student has returned to class but not more than 10 business days after the last date of absence.
- Absences that may be excused without a letter include circumstances beyond the student’s control such as medical treatment, surgery related to prolonged illness or injury, pregnancy, legal matters, citizenship or naturalization processes, or acts of nature which cause destruction to a primary residence or disrupt air travel. All will require documentation.
- Absences that may also be excused without a letter include a conference or job, graduate or professional school interviews, though a best effort should be made to schedule these events to minimize class attendance disruption. All will require documentation.
- Absences planned for the items listed in previous bullet point must be communicated to your instructor or course coordinator at least two weeks in advance of the absence. Failure to do so may result in the loss of opportunity to reschedule the missed class period and the portion of the grade associated with this class period.
- Absences that will not be excused include family events such as reunions or weddings, or presence during serious illness of extended family members (aunt, uncle, niece, nephew, or cousin).
- Unplanned absences may result in the loss of opportunity to reschedule the missed class period and, therefore, the portion of the grade associated with this class period.
- Absences will be handled according to individual course policy.

**Final Exam Conflict:**

- Conflict final exams may only be granted for any one of the following situations:
  - Students with three final exams scheduled within a 24 hour period as defined in Section 82.A.4). Final Examinations of the [Code of Policies and Regulations](http://odos.illinois.edu/studentAssistance/absence/revised_code.asp)
Applying to All Students which can be found at: www.illinois.edu/admin/manual/code/

- Students who have two final exams scheduled at the same time. Final conflict exam requests should be made to the course with larger enrollment. Course personnel can assist with information to determine which course this would be.
- Students who have a verified personal problem, and who have received written permission to take a conflict final exam from a dean in their college.
- Students who have DRES academic accommodations.

- Students that find themselves in any of the above situations should complete the online Conflict Final Exam Request Form which can be found on the course website. This request must be made by 5:00 pm on the last day of class in order for the request to be granted. Any requests made after this time may not be granted. If a conflict final exam is granted, it may be scheduled at any time during the final examination period and is at the discretion of the instructor or course coordinator.

Academic Integrity:

- The Code of Policies and Regulations Applying to All Students will be applied in all instances of academic misconduct committed by students. This applies to all exams, presentations, assignments and materials distributed or used in this course. You can review these policies at the following website: http://admin.illinois.edu/policy/code/index.html and specifically here: http://studentcode.illinois.edu/article1/part4/1-401/
- Science cannot exist without honesty. The faculty and staff in MCB require students, as scientists-in-the-making, to hold the highest standards of scientific and academic conduct. Any form of cheating on any graded work in courses is unacceptable.
- We require that all graded work be entirely your own, and that anything you write using the words of other writers be correctly attributed. Some specific points follow.
- On exams, the answers that your turn in for grading must be your own, formulated during the exam from your own understanding of the material and without any supporting information, be it written, verbal or electronic. Copying the work of another student, or allowing another to copy your work, or copying work from any other source, is unacceptable. Since we cannot always monitor you as you complete your work, we must rely upon appearance of your work from which to judge. If the work you submit resembles that of another student or another source too closely, we may conclude that it was not your original work. Always make a conscious effort to complete your work on your own and to protect it from the view of others, in order to ensure that it will be seen as your own. Failure to adhere to these standards for any portion of an exam may result in a grade of zero for the entire exam or quiz for all persons involved.
- Texting, or the use of a cell phone or any other device for any purpose, during a quiz or exam is prohibited. Doing so may earn you a zero or a more extreme penalty on the quiz or exam at the discretion of the instructor.
- Use of any social or electronic media to share information, request information or make confidential information public is prohibited. Any use of this type may earn you a zero on the exam or a more extreme penalty at the discretion of the instructor.
- On written or electronic assignments, the answers that you turn in for grading must be written in your own words, formulated from your own understanding of the material. While you may be working with other students in the course, you must formulate and submit your own answers. Copying or paraphrasing the work of another student, or allowing another to copy or paraphrase your work, is unacceptable. Since we cannot monitor you as you complete your work, we have only the appearance of your work
from which to judge. If the work you submit resembles that of another student too closely, we may conclude that it was not your original work. Always make a conscious effort to complete your work on your own and to protect it from the view of others, in order to ensure that it will be seen as your own. You must also make a conscious effort to protect your passwords and accounts. Failure to adhere to these standards may result in a grade of zero for the entire assignment for all persons involved.

- On written or electronic assignments, if you use a statement taken directly from any book or other publication, including the course textbook, you must provide a citation. That is, you must put the text in quotes and put the author of the publication in parentheses after the quotation. Failure to do so will result in zero credit for that answer. Further, using only the words of another author as your entire answer or as the majority of your answer to any question is never sufficient to earn credit. If the majority of your work has been taken directly from a publication, you are likely to receive no credit for the work, since you would not be demonstrating knowledge beyond the ability to copy. Even if you quote another, your answer must be substantially your own words, drawn from your own understanding of the material.

Electronic Media/Device Use:
- Use of any social or electronic media to share course information, request course information or make confidential course information public is prohibited. Any use of this type may earn you a zero on an assignment or exam or a more extreme penalty at the discretion of the instructor.
- Any violation of the social media policy on your account may result in a zero on an assignment or exam or a more extreme penalty at the discretion of the instructor.
- Any social media sites created in relation to MCB courses must grant access to course personnel upon request. Failure to provide access will result in a failing grade in the course for the group/site’s administrator(s).
- No electronic devices, including smart watches, are allowed at exams.

Course Material:
- Students are welcome and encouraged to make audio recordings of course lectures.
- The material recorded is intellectual and copyrighted property of the University of Illinois Board of Trustees and may be made for personal use only.
- Video recordings of any kind are strictly prohibited.
- Posting of audio recordings or transcriptions on social or electronic media platforms is strictly prohibited.
- Posting or redistributing of course material in any format is strictly prohibited.

University Information of Student Safety - Active Threats:
- General Emergency Response Recommendations (Emergency Response Guide):
- Security Threat. The Department of Homeland Security and the University of Illinois at Urbana-Champaign Office of Campus Emergency Planning recommend the following three responses to any emergency on campus: RUN > HIDE > FIGHT

- Only follow these actions if safe to do so. When in doubt, follow your instincts - you are your best advocate!

- RUN — Action taken to leave an area for personal safety.
  - Take the time to learn the different ways to leave your building before there is an emergency.
Evacuations are mandatory for fire alarms and when directed by authorities! No exceptions!
- Evacuate immediately. Pull manual fire alarm to prompt a response for others to evacuate.
- Take critical personal items only (keys, purse, and outerwear) and close doors behind you.
- Assist those who need help, but carefully consider whether you may put yourself at risk.
- Look for Exit signs indicating potential egress/escape routes.
- If you are not able to evacuate, go to an Area of Rescue Assistance, as indicated on the front page of this plan.
- Evacuate to Evacuation Assembly Area, as indicated on front page of this plan.
- Remain at Evacuation Assembly Area until additional instructions are given.
- Alert authorities to those who may need assistance.
- Do not re-enter building until informed by emergency response personnel that it is safe to return.
- Active Threat: IF it is safe to do so, run out of the building. Get as far away as possible. DO NOT go to the Evacuation Assembly Area.

**HIDE** — Action taken to seek immediate shelter indoors when emergency conditions do not warrant or allow evacuation.
- Severe Weather:
  - If you are outside, proceed to the nearest protective building.
  - If sheltering-in-place due to severe weather, proceed to the identified Storm Refuge Area or to the lowest, most interior area of the building away from windows or hazardous equipment or materials.
- Active Threat:
  - Lock or barricade your area.
  - Get to a place where the threat cannot see you.
  - Place cell phones on silent.
  - Do not make any noise.
  - Do not come out until you receive an Illini-Alert advising you it is safe.

**FIGHT** — Action taken as a last resort to increase your odds of survival.
- Active Threat: If you cannot run away safely or hide, be prepared to fight with anything available to increase your odds for survival.

**Student Resources/Where to go for Help:**
**We Care at Illinois**
- For sexual misconduct support, response and prevention visit: wecare.illinois.edu

*Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: [http://oiir.illinois.edu/sites/prod/files/SexualMisconduct_ResourceGuide.pdf](http://oiir.illinois.edu/sites/prod/files/SexualMisconduct_ResourceGuide.pdf)*

**Safety and Emergency**
*University Police Department, Emergency, 9-911; Non-emergency, 217-333-8911*
*University Fire Department Emergency, 9-911*
*Crisis Line, 217-359-4141*
Emergency Dean, 300 Turner Student Services Bldg., 610 E. John St., 217-333-0050  
Counseling Center, 110 Student Services Bldg., 610 E. John St., 217-333-3704  
McKinley Health Center, General Information, 217-333-2701  
McKinley Mental Health Center, 1109 S. Lincoln, 217-333-2705  
Dean of Students, 300 Turner Student Services Bldg., 610 E. John St., 217-333-0050  
Local Sexual Assault Center, RACES, 217-384-4444  
Women’s Resources Center, 703 South Wright Street, 2nd Floor, 217-333-3137  
Rape Crisis 24-hour Hotline, 217-384-4444  
Suicide & Psychological Emergency, Suicide Prevention Team, 217-333-3704  
SafeRides (free nighttime campus ride program), 217-265-RIDE (265-7433)  
SafeWalks (free walking escort service by Student Patrol), 217-333-1216  

**Student Services and Advocacy**  
Office of the Dean of Students, 300 Student Services Bldg., 610 E. John St., 217-333-0050  

**Classroom Support, Teaching Skills, and Instructional Strategies**  
Center for Innovation in Teaching & Learning, 249 Armory Building, 217-333-1462  

**Counseling Services**  
Counseling Center, 110 Student Services Bldg., 610 E. John St., 217-333-3704  
McKinley Mental Health Center, 1109 S. Lincoln Ave., 217-333-2701  
Psychological Services Center, 3rd Floor, 505 E. Green St., 217-333-0041  

**Disability Services**  
Disability Resources and Educational Services (DRES), 1207 S. Oak St., 217-333-1970  

**Lesbian, Gay, Bisexual, Transgender Resource Center**  
LGBT Resource Center, 323 Illini Union, 1401 W. Green St., 217-244-8863  

**Veterans Services**  
Veteran Student Support Services, Office of the Dean of Students, 610 E. John St., 217-333-0050  
Center for Wounded Veterans in Higher Education, 908 W. Nevada St., 217-300-3515  

**General Study Skills Assistance**  
Office of Minority Student Affairs, 130 Student Services Bldg., 610 E. John St, 217-333-0054  
Office of Minority Student Affairs Tutoring Services, 701 S. Gregory Dr., Suite 1, 217-333-7547  
Writer’s Workshop, 251 Undergraduate Library, 1402 W. Gregory Dr., 217-333-8796  
**Additional academic assistance may be available through individual departments  

**Health Resources**  
Health Education, McKinley Health Center, 1109 S. Lincoln Ave., 217-333-2701  
Alcohol & Other Drug Office, 2nd Floor Counseling Center, 610 E. John St., 217-333-7557  
Sexual Health Educator, McKinley Health Center, 1109 S. Lincoln Ave., 217-333-2714  
Dial-A-Nurse, McKinley Health Center (24-hour), 1109 S. Lincoln Ave., 217-333-2700  
Health Resource Center, McKinley Health Center, 1109 S. Lincoln Ave., 217-333-6000  
Health Resource Center, Room 40 Illini Union, 1401 W. Green St., 217-244-5994  
McKinley Health Center, General Information, 1109 S. Lincoln Ave., 217-333-2701  

**Sexual Harassment/Assault & Acts of Intolerance/Hate Crimes**  
Office of the Dean of Students, 300 Students Services Bldg., 610 E. John St., 217-333-0050  

**The Office of Diversity, Equity and Access (ODEA):**  
- For non-academic support visit: diversity.illinois.edu
- Discrimination & Harassment Prevention
- Title IX
- Accessibility & Accommodations
- Inclusive Illinois