MCB 493: Epigenetics Fall 2024

Time and Place: Mondays, Wednesdays, Fridays, 2-2:50 PM, Lincoln Hall 1057

Course Objectives: This class is designed to teach contemporary concepts underlying the field of epigenetics to advanced undergraduates and graduate students. A primary goal of this class is to provide you with sufficient background knowledge in epigenetics so that you will then be prepared to read the primary contemporary literature in this field in coming years. A secondary goal of this class is to teach you how to read primary scientific papers and interpret experimental data, thus learning how scientific advances are made.

Policy for Zoom broadcasting and recording: I will by default NOT live-broadcast the class lecture but will try to record it and post the recorded lectures. However, if anyone has COVID or COVID-like symptoms **let me know ahead of class** and I can broadcast the lecture so that you can participate if you are quarantining at home.

Zoom link for those occasions: MCB 493 Epigenetics
https://illinois.zoom.us/j/89448087712?pwd=RTQD78axAakqtdPB4n5l51uOBuNS2O.1

Meeting ID: 894 4808 7712
Passcode: 370150

Instructor:
Dr. Andrew Belmont
B509 CLSL
asbel@illinois.edu

Office Hours: (via Zoom) 9-10 am, Thursdays
Zoom Link for Office Hours: MCB493 OFFICE HOURS
https://illinois.zoom.us/j/89473025242?pwd=7XQ48Fj335GLQhhYxQn4NcpiWpArVE.1
Meeting Code 894 7302 5242
Passcode: 810156

CANVAS Shortname: MCB 493 EPI FA24
CANVAS Access URL: https://canvas.illinois.edu/courses/46914

Course Student Learning Objectives:

1. Students will learn basic concepts and facts about the field of epigenetics as scientists understand these concepts and facts today, including:
    a. Definition of epigenetics
    b. Levels of chromatin folding of DNA into chromosomes and basic concepts about transcriptional regulation

c. Biochemical modifications of histone and nonhistone chromosomal proteins playing possible roles in regulation of gene expression and epigenetics
d. Role of noncoding RNAs in gene expression regulation and epigenetics
e. Position effect variegation and developmental gene memory of homeotic genes and the inactive X chromosome as model systems to study epigenetic mechanisms

2. Students will learn how to independently learn about new findings in epigenetics and to understand the types of contemporary questions being investigated. This will include learning about experimental methodologies used in epigenetics research. Most importantly this will include learning how to read a scientific article.
3. Students will learn how important human disease processes are currently being studied as possible diseases of epigenetic regulatory mechanisms. Through several contemporary scientific literature reading assignments, students will learn how diseases as diverse as diabetes, cancer, and aging may have explanations in perturbations of epigenetic gene regulation.

Philosophy motivating these student learning objectives: Science instruction is typically torn between conveying scientific knowledge versus conveying actually how we go about acquiring that knowledge- i.e. the actual "art of science" as a natural philosophy. My goal for this course is to shift the balance from primarily conveying information, which is characteristic especially of many lower-level undergraduate courses, to an equal weight on conveying where the field is in terms of acquiring this information- what we really know, what we think we may know, what we definitely don't know, and what we'd like to know. In other words, I'd like to give you a taste of "real" science- not just the summary of what we think we know about a scientific topic that you will find in a textbook. At the same time, I will try to describe the tools the field has developed to address these questions, and recent progress the field has made using these tools.

Most importantly, my goal this semester is to design the course in such a way that its emphasis is on teaching you how to independently learn about new findings in the field of epigenetics. Without doubt, these new findings will have impact in future medical care for you and your family. At the very least, you should learn how to read about new discoveries in epigenetics both in the lay and scientific literature and to judge how these new discoveries may impact future health care practices.

With this goal in mind, basic concepts will be presented with a focus on contemporary methods and observations as well as seminal experiments. We often will give a historical perspective as well before leading into contemporary methods and research. This is important because science is a human process that can be flawed. Current researchers often "rediscover" previous discoveries that a generation of previous investigators had ignored or failed to appreciate. Conversely, in some cases researchers often wear "blinders", based on prevailing but wrong theories, whereby they misinterpret the significance of new experimental results. Providing a historical perspective can help understand the long-term trajectory of a field.

Where possible we will also cover applications of epigenetics to contemporary topics in both basic and translational sciences. Lectures will be supplemented with problem-solving questions; these questions will address interpreting and explaining experimental results and may be distilled directly from original experiments described in the primary literature.

Occasionally, I will include lectures focused on an in-class discussion of primary research papers that you will read ahead of class. In one of the early lectures, I will introduce how to approach reading a scientific paper, recognizing that this may be new to many or you.

Then in the last several lectures of the class, we will focus on a contemporary topic in epigenetics, including more primary papers we will read and discuss as a class.

Course Style:

I will mostly teach this class as a "flipped course". For many, if not most, lecture topics, I will try to convey appropriate background material via pre-class assignments- reading assignments and/or review of slides and/or online video explanations of the material- that you will do PRIOR to class. Then we will use the class time for higher level exploration of the lecture topic.

There will be a required Class Participation Assignment (CPA) that will cover background material that you will need to cover before coming to each class. In class we will review answers to this assignment and further discuss the topic(s) for that day. For example, if the assignment covered historical background on the topic, we might use the class time to cover where the field has advanced in more recent years. Or we might discuss related material, such as newer experimental approaches that are being applied to this topic.

CPAs will include a combination of simple factual questions, designed to help you extract the most important points of each lecture assignment, as well as active problem-solving involving questions related to the lecture assignment. As much as possible, these Problem Set questions will be designed to also prepare you for the exam questions that you will experience in two mid-term exams and one final exam.

Pre-class Assignments:

Most often the pre-class assignment will be a traditional review of the topic that will be the focus of the class. This will allow our in-person class time to be spent more productively in either active learning or covering more challenging material.

For each class topic, I will have a study guide that will list the concepts and/or questions that will guide you with regard to the key information I want you to extract from this pre-class assignment.

Recognizing that each student will have one or more preferred learning styles, typically you will have more than one option in the pre-class assignment material for how to learn the topics in the assignment. For most classes, there will usually be an assigned review book chapter or a contemporary journal review article(s) covering the lecture topic. Additionally, I will have a Powerpoint slide presentation that summarizes the key points of this reading material. Finally, I also will have an online video presentation that talks through this Powerpoint slide presentation. The Powerpoint presentation will be designed as a more concise and directed summary of the assigned reading material, summarizing, and covering the key points of this reading material as far as the learning goals of this lecture unit. Typically, the assigned reading material is designed for practicing scientists and advanced graduate students in that research field. Therefore, focus on the Powerpoint slides and online video presentation of these slides, together with the study guide, to extract the key points of the subset of information that I am choosing to cover. Use the assigned reading to clarify points from the Powerpoint slides and/or video presentation of these slides and for your own deeper exploration of these topics. **Time spent doing these readings has correlated with improved class and exam performance as a number of students find that the readings provide them with a significantly deeper understanding of the material than they gain from the online video and Powerpoint slide summary.**

For most students, I imagine reviewing the slides carefully would be the best starting point. This can then be followed by selective scanning of the assigned reading or online video presentation to understand and/or further explore the key points summarized in each slide and to extract the information you need to answer the CPA questions and to cover the key points for each topic stressed in the Study Guide.

Class Participation Assignments (CPAs):

Additionally, there will typically be a Class Participation Assignment (CPA) that you will bring to each class.

Before each class, you will answer a Class Participation Assignment consisting of a set of questions. Most of these will be questions addressed at factual information that is covered in the online video, slides, and reading material and are meant to encourage you to cover the material prior to class. A small number of questions may involve problem-solving as discussed below under "Problem Solving".

You will bring a printed copy of your CPA to class. At the beginning of each class, we will go over answers to these CPAs as a way of beginning a more general discussion about the assigned topic for that class.

You will not be graded on your answers other than a Pass for a sincere effort and a Fail for not turning in the CPA or turning in what is judged as an inadequate CPA due to lack of effort. If for some reason you are not able to attend class, you can email me and explain the circumstances and see if you can be excused and/or turn in the CPA through another means- hard copy or electronic version.

You will require a certain percentage of Passes for these CPAs to earn certain grades in the class (See "Course Grades" below).

Problem Solving in CPAs

To reinforce lecture topics and also our emphasis on experimental science, we will emphasize problem solving of experimentally oriented questions. These problems are meant to help you apply the facts and knowledge that you learn in the class.

These problems are incorporated into CPAs, with the problems within the CPAs providing examples of the types of problems you will be tested on in the exams.

We will cover the answers to many of these problems in class, during discussion of the CPAs. After you turn in the CPAs, answers will be posted. Office hours will provide you with additional opportunities to receive further explanation as needed.

These problems are meant to prepare you for the exams. Exams will include similar problem-solving questions that focus on your conceptual understanding of the material rather than simple memorization of facts. You will need to know some facts, similar to the factual-based questions asked in the CPAs, but you will also be asked to interpret experimental data, demonstrate your conceptual knowledge of the field, and to solve problems similar to those assigned in the CPAs.

Course Mechanics:

All reading assignments, slides, and online video presentations that prepare you for in-class lectures will be posted on the class Canvas site. The Study Guides and CPAs will be posted together with these reading assignments, slides, and online video summaries. I will try to post these assignments several days or more before the in-person class.

CPAs will be turned in at the beginning of each class. CPA answers will be posted after class on the Canvas site.

You should carefully examine the posted answers to CPAs and make sure that you understand both the answers **and the logic** behind the problem-solving questions. These problem-solving questions are meant to help prepare you for the exams. However, they may be more difficult than the actual exam questions as you will have more time and they are meant as a learning exercise that will prepare you for the exam questions.

Course Grading:

Your final grade in the course will reflect primarily the combination of your exam score and the number of your CPAs receiving a "Pass". Grades may additionally depend on your participation in class discussion.

There will be three exams, each counting equally for 100 points. They will be summed for an exam total of 300 possible points which will then be scaled by percentage of possible points. Exams will each cover the material discussed in class prior to that individual exam. However, later exams will be cumulative to the extent that material covered later in the course will continue to build on the knowledge covered earlier in the course. Thus, your ability to successfully answer questions on later exams may depend on your retention of knowledge covered on earlier exams.

1. Total exam percentages required for qualification for specific letter grades are as follows:
   A+: > 85%; A: 75-85%; A-: 70-74%; B+: 65-69%, B: 50-64%: B-: 45-49%; C+ 40-44%; C 30-40%, D <30%.
   (The course instructor reserves the right to lower the total exam percentage required for a given grade.)

2. Additionally, there will be a specific percentage of CPA "Passes" required for grading as follows:

   A+ will require 85% or higher CPA Passes in addition to requisite exam total percentage.

   Borderline grades (i.e., A versus A-, A- versus B+) based on exam scores will be boosted to the higher grade with a CPA Pass percentage of 75% or higher.

   Borderline grades (ie A versus A-, A- versus B+ based on exam scores will be lowered to the lower grade with a CPA Pass percentage of 50% or lower.

   (Note: The course instructor reserves the right to replace exceptional participation in class discussions in place of these specific CPA Pass completion requirements noted above.)

Exams are designed to be challenging with problem-solving questions, comprising a significant fraction of exam points, probing the depth of students' understanding. Student exam scores have typically been spread out across a wide range of point totals rather than distributed in a Gaussian distribution. The exam total percentage for the different letter grades posted above reflects historical trends over the last three years this course has been offered.

At the discretion of the course instructor, in those rare circumstances where a student does significantly better relative to the other students in the class on both Exams 2 and 3 versus Exam 1, then the Exam 1 scores will be dropped. This is meant to reward students who make

adjustments to the conceptual and problem-solving nature of the course material and change their study habits after the first Exam.

Midterm exams will be in the evening to ensure that you are not limited by time constraints. They will be designed to be completed within 1 hour if you know the material well. However, you will be given 3 hours to complete the exam. Both the two midterms and the non-cumulative final will mostly cover the content of the preceding ~1/3 of the lectures. However, exam questions may build on concepts and knowledge from earlier parts of the course. Each exam will count equally towards your grade.

Exceptional participation in class- answering certain difficult questions for example- will earn bonus points added to your exam total.

Recommended Texts:

I will assume you all have a good reference textbook for molecular and cellular biology from previous courses. I understand that the MCB undergraduate core uses the Lodish textbook. Many of you may have the Alberts textbook. You will be able to cover valuable review by referring to one or the other of these textbooks. I may refer you to specific pages of these textbooks.

1. Molecular Cell Biology, 8thth edition, Lodish, et al
OR
2. Molecular Biology of the Cell, 6th or 7th edition, Alberts, et al

Reference Text:

A reference textbook for many lectures will be the Epigenetics book listed below. However, I have listed this as a reference because nearly all chapters are available online in the public domain through PubMed, the edition is somewhat outdate, and I will be posting copies on the website.

This book is "dense" even for researchers in the field. I will be summarizing key points in the online video summaries, and using this as a launching point for the lecture and discussions.

Epigenetics, 2nd edition, David Allis et al, Cold Spring Harbor Laboratory Press

Literature: Where appropriate we also will cover material from the scientific published literature. In some cases, I will simply summarize key results into my lecture and discussion material but post the original articles for anyone interested in reading further. In other cases, papers may be assigned reading for the course.

Prerequisites: MCB 250 and 252 or equivalent, MCB 354 or equivalent is highly recommended

Tentative Topic Schedule:

WEEK 1:

Lecture 1 (M) (8/26): **Course Introduction and What is Epigenetics**

Lecture 2 (W) (8/28): **Early Cytology and connecting cytology to epigenetic phenomenon**

Lecture 3 (F) (8/30): Drosophila Position Effect Variegation (PEV) and How to Read a Scientific Paper I

WEEK 2:

Labor Day Monday Sept. 2- no class

Lecture 4 (W) (9/4): Paper Discussion- Connecting Drosophila PEV with intergenerational inheritance of obesity (1st part of following paper): Paternal diet defines offspring chromatin state and intergenerational obesity, Cell 159: p.1352 (2014

Lecture 5 (F) (9/6): DNA methylation I: phenomenon, enzymes, how to measure
Note: There will be no class, as I will be out of town. Instead, a recorded video will replace the in-class lecture/discussion.

Week 3:

Lecture 6 (M) (9/9): DNA methylation II: Patterns of DNA methylation, changes with aging, and other biological functional connections

Lecture 7 (W) (9/11)- Nucleosome Structure and Positioning I: Discovery and mapping of positions

Lecture 8 (F) (9/13)- Nucleosome Structure and Positioning II: In vitro and in vivo effects of nucleosomes on transcription

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WEEK 4:

Lecture 9 (M) 9/16 Putting concepts into practice: Do Nucleosome "Clutches" Exist? How to test? In class discussion, debate, and hypothesis testing

Lecture 10 (W) (9/18): Review of transcriptional regulation

Lecture 11 (F) 9/20: GCN5 is a Histone Acetyltransferase

WEEK 5:

Lecture 12 (M) 9/23: Modified Histones/nucleosomes

Lecture 13 (W) 9/25: How to measure histone modifications genome-wide

Lecture 14 (F) 9/27: Histone variants and neocentromeres

WEEK 6

Lecture 15 (M) 9/30: Optional Review Session

First midterm M, 9/30 evening

Lecture 16 (W) 10/2: Nucleosome Variants in Health and Human Disease- assigned paper, in-class discussion

Lecture 17 (F), 10/4: Nucleosome Dynamics I – Chromatin remodeling complexes I

WEEK 7

Lecture 18 (M) 10/7: Nucleosome Dynamics II

Lecture 19 (W) 10/9: Conceptual models of Epigenetic Silencing based on Yeast Epigenetic Silencing

Lecture 20 (F) 10/11: Small RNAs and RNAi, Part I

WEEK 8

Lecture 21 (M) 10/14: Small RNAs and RNAi- Part 2

Lecture 22 (W) 10/16: Transposable Elements, Retrotransposons, and Cell Senescence

Lecture 23 (F) 10/18: In class discussion of paper related to retrotransposons and aging

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WEEK 9

Lecture 24 (M) 10/21: Cellular memory of gene expression by Polycomb and Trithorax, part 1

Lecture 25 (W) 10/23: Cellular memory of gene expression by Polycomb and Trithorax, part 2

Lecture 26 (F) 10/25: Cellular memory of gene expression by Polycomb and Trithorax, part 3

WEEK 10

Lecture 27 (M) 10/28: Intergenerational inheritance

Lecture 28 (W) 10/30: In class discussion of research paper on intergenerational inheritance of obesity in flies

Lecture 29 (F) 11/1: Higher-order chromatin folding, part 1

Week 11

Lecture 30 (M) (11/4): Exam 2 Optional Review Session

Second midterm M, 11/4 evening

Lecture 31 (W) (11/6): Higher-order chromatin folding, part 2

Lecture 32 (F) (11/8): Enhancers, Boundary Elements/Insulators, Super-enhancers

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WEEK 12

Lecture 33 (M) (11/11) Nuclear Compartments mapped by Omic methods

Lecture 34 (W) (11/13): Nuclear Compartments continued

Lecture 35 (F) (11/15): 3C and related methods to map chromosome topology and nuclear genome organization

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WEEK 13

Lecture 36 (M) (11/18): Concepts about chromosome folding derived from 3C and related methods

Lecture 37 (W) (11/20): Condensates: a new paradigm

Lecture 38 (F) (11/22): Sex chromosome dosage compensation

Fall Break: Nov 23- Dec 1

Week 14

Lecture 39 (M) (12/2): Research paper connecting condensates and X inactivation

Lecture 40 (W) (12/4): Aging as an epigenetic disease?

Lecture 41 (F) (12/6): iPS cell reprogramming

WEEK 15

Lecture 42 (M) (12/9): Partial rejuvenation of aging by partial reprogramming

Lecture 43 (W) (12/11): To be announced

Optional Review Session and Final Exam: to be arranged

Additional Syllabus Items:

General MCB Course 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 happy to assist students.
- Emails to instructors 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 faculty 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:
    - The course rubric in the subject line
    - Your full first and last name
    - Your NetID (the first part of your illinois.edu email account)
    - Your UIN (9 digit number that can be found on your ICard)
    - The course that you are concerned about (the course personnel often work with multiple courses)
    - Your section letter/number
    - 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 is covered.

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)
- 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.

Exam Absences:

- If you must miss an exam due to unforeseen circumstances, you are required to contact your instructor within 24 hours of the absence. You will then have 48 hours from the absence in which to submit documentation to your instructor. Course personnel will evaluate documentation and decide whether or not there will be an option to compensate for the missed exam through either a make-up exam or proration. Failure to follow this procedure will result in a zero for the exam.
- 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.
- If you must miss an exam for a conference or job, graduate or professional school interviews, the exam may be prorated. A best effort should be made to schedule these events around exams. You will need to be mindful that only one exam may be prorated in a semester for any and all absences. All will require documentation.
- There will be instances when a student must make an individual choice about their ability to perform on an exam and will need to accept any and all consequences for that choice.
- If the absence is a result of a protracted illness of 3 days or more, you should follow the procedure for obtaining a letter from the Office of the Dean of Students. The request may be made once the student returns to class but not more than 10 business days after the last date of absence.

Exam Conflicts:

- If you have a regularly scheduled University course that conflicts with the exam, you should complete the online Conflict Exam Request Form on the course website. This request must be made by 5:00 pm not less than 3 business days prior to the exam. Requests made after 5:00 pm and less than 3 business days prior to the exam will not be granted. See in class provided course information for a specific deadline.
- If at all possible, work schedules should be adjusted to eliminate a conflict with scheduled exams. Please plan accordingly at the beginning of the semester. If eliminating a conflict is not possible, the student should complete the online Conflict Exam Request Form on the course website. This request must be made by 5:00 pm not less than 3 business days prior to the exam. Requests made after 5:00 pm and less than 3 business days prior to the exam will not be granted.
- Students that are formally participating in officially recognized groups, such as athletic teams and performing groups, with a conflict should request a conflict exam by 5:00 pm not less than 3 days prior to the exam via the online Conflict Request Form. Formal participation does not include general meetings of RSOs or any other recognized groups. Documentation of the event will be required prior to scheduling the conflict exam. Requests made after 5:00 pm and less than 3 business days prior to the exam will not be granted.

- Students with DRES accommodations should also submit the online Conflict Request Form by 5:00 pm no later than 3 business days prior to the exam. Requests made after 5:00 pm and less than 3 business days prior to the exam will not be granted.

Grades:

- The grade you earn in the course will be based on the points that you earn. Effort is reflected in points earned.

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. Failure to adhere to these standards for any portion of an exam may result in a grade of zero for the entire exam for all persons involved.
- Texting, or the use of a cell phone or any other device for any purpose, during an 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. 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.

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).

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.
- 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

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 Students 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
LGTB 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