



MCB 297 C, Spring 2024

SYLLABUS

MCB Honors Discussion Section C, 1 Credit Hour

Instructor

Gary J. Olsen
A448 C&LSL
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Class Meeting Schedule

Monday 16:00-16:50

Office Hours

Wednesday 15:00-16:50 in C&LSL A448 (this is subject to change in order to better accommodate the needs of the students), or by arrangement.

Course Overview and Description

Honors discussion section associated with MCB 354. Concurrent enrollment in the appropriate lecture course is required.

In Section C, students will learn how *(i)* to use and evaluate review articles, *(ii)* to tailor communication about scientific research to specific audiences, *(iii)* to provide constructive feedback to fellow students, and *(iv)* to approach controversial or potentially paradigm-shifting ideas. We will also discuss the merits and potential pitfalls of peer review, and its roles in publication and funding mechanisms.

Course Prerequisites

Concurrent enrollment in MCB 354: Biochemical & Physical Basis of Life

Student Learning Outcomes

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

1. Understand the roles of peer review in scientific publication and funding;
2. Compare and contrast the roles of primary literature and secondary/review literature;
3. Assess primary literature containing scientifically controversial topics to recognize assumptions, errors, or limitations that are important to the accuracy of the conclusions drawn; and
4. Match the content level of presentations to the experience of an audience.

Required Text/Materials

No required texts

Course Website, Course Tools

Course information and other materials will be distributed through the course Moodle:
<https://learn.illinois.edu/course/view.php?id=77154>
Login via your University of Illinois NetID and Password

Grading Information and Point Allocations

Points	Assignment
10	Brief written assignments related to course topics (2 @ 5 points each)
60	Analyses (partial summaries) of Review Articles (2 @ 30 points each)
10	Peer review of another student's Review Article Analysis
5	Responses to peer review comments on your draft Review Article Analysis
15	Brief sketches (elevator pitches) of a research article at 3 levels of audience sophistication
45	Slide (typically PowerPoint) presentations of the research article at 3 levels of audience sophistication
10	A Poster style presentation of the research article
5	Oral PowerPoint or Poster presentation of the research article to class
40	Peer comments/suggestions on the presentations (8 @ 5 points each)
200	Total points

Additional details are provided with the instructions for each assignment.

All assigned work is required, even if it must be submitted late. In the absence of a documented excuse, late work may be penalized. Details vary by assignment.

Tentative Grading Scale (it is possible that the scale will be made more permissive, but it will not be made more stringent)

Letter grade	Point range
A+	200–185
A	184–177
A–	176–170
B+	169–164
B	163–156
B–	155–150
C+	149–144
C	143–136
C–	135–130
D+	129–124
D	123–116
D–	115–110
F	109 or less

Course Calendar and Schedule of Topics, Readings to be completed, and Assignment Due Dates

These are provided in separate documents on the course Moodle.

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:
 - 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 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)
- 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.

Grades:

- Each course has a grade scale. The grade you earn in the course will be based on the points that you earn. Effort is reflected in points earned. We will adhere to the grade scale when assigning grades in order to avoid capriciousness and to adhere to fairness and equity for all students.

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

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

LGBTB 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

MCB 297 C Honors Discussion Spring 2024

Instructor

Gary J. Olsen
A448 C&LSL (office)
Email: gjo@illinois.edu

Class Meeting Schedule

Monday, 16:00–16:50

Office Hours

Wednesday, 15:00–17:00 in C&LSL A448 (this may change to better accommodate the needs of the students), or by appointment.

Schedule of Topics

Week	Date	Topics
1	Jan. 22	<i>Introduction to Class and Syllabus</i>
2	Jan. 29	<i>The Roles of Review Articles</i>
3	Feb. 5	<i>Peer Review: Pros, Cons, and Variations</i>
4	Feb. 12	<i>Group 1 Presentations: All Elevator Pitches and Slide Presentations to Freshmen and MCB Upperclassmen</i>
5	Feb. 19	<i>Group 1 Presentations: Expert Slide Presentation and Poster Presentation</i>
6	Feb. 26	<i>In-Class Peer Review of Review Article Analysis Draft</i>
7	Mar. 4	<i>Group 2 Presentations: All Elevator Pitches and Slide Presentations to Freshmen and MCB Upperclassmen</i>
	Mar. 11	<i>Spring Break</i>
8	Mar. 18	<i>Group 2 Presentations: Expert Slide Presentation and Poster Presentation</i>
9	Mar. 25	<i>Group 3 Presentations: All Elevator Pitches and Slide Presentations to Freshmen and MCB Upperclassmen</i>
10	Apr. 1	<i>Group 3 Presentations: Expert Slide Presentation and Poster Presentation</i>
11	Apr. 8	<i>Group 4 Presentations: All Elevator Pitches and Slide Presentations to Freshmen and MCB Upperclassmen</i>
12	Apr. 15	<i>Group 4 Presentations: Expert Slide Presentation and Poster Presentation</i>
13	Apr. 22	<i>Group 5 Presentations: All Elevator Pitches and Slide Presentations to Freshmen and MCB Upperclassmen</i>
14	Apr. 29	<i>Group 5 Presentations: Expert Slide Presentation and Poster Presentation</i>
	May 8	<i>Submit Second Review Article Analysis by 16:30 via email to gjo@illinois.edu</i>

MCB 297 C
Honors Discussion
Spring 2024
Research Articles for Presentations
(in no particular order)

Title	Reference
Structural identification of a bacterial quorum-sensing signal containing boron.	Chen, X., Schauder, S., Potier, N., Van Dorsselaer, A., Pelczar, I., Bassler, B. L., and Hughson, F. M. 2002. <i>Nature</i> 415 : 545–549. https://doi.org/10.1038/415545a PMID: 11823863
RNA-dependent DNA polymerase in virions of Rous sarcoma virus.	Temin, H. M., and Mizutani, S. 1970. <i>Nature</i> 226 : 1211–1213. https://doi.org/10.1038/2261211a0 PMID: 4316301
The RNA moiety of ribonuclease P is the catalytic subunit of the enzyme.	Guerrier-Takada, C., Gardiner, K., Marsh, T., Pace, N., and Altman, S. 1983. <i>Cell</i> 35 : 849–857. https://doi.org/10.1016/0092-8674(83)90117-4 PMID: 6197186
A bacterium that can grow by using arsenic instead of phosphorus.	Wolfe-Simon, F., Switzer Blum, J., Kulp, T. R., Gordon, G. W., Hoefl, S. E., Pett-Ridge, J., Stolz, J. F., Webb, S. M., Weber, P. K., Davies, P. C., Anbar, A. D., and Oremland, R. S. 2011. <i>Science</i> 332 : 1163–1166. https://doi.org/10.1126/science.1201482 PMID: 21127214
Functional characterization of a novel ArgA from <i>Mycobacterium tuberculosis</i> .	Errey, J. C., and Blanchard, J. S. 2005. <i>J. Bacteriol.</i> 187 : 3039–3044. https://doi.org/10.1128/JB.187.9.3039-3044.2005 PMID: 15838030
