School of Molecular & Cellular Biology

MCB 297B, Fall 2021

MCB Honors Discussion, 1 Credit Hour

Instructor
Dustin Buntrock
484A Burrill Hall
Email: dustinb2@illinois.edu
Office Phone: 265-0867

Class Meeting Schedule
Section B: M 16:00-16:50
Instructor Office Hours: M 15:00-15:50 in Burrill Hall 484A

Course Overview and Description
Honors discussion section associated with MCB 250, MCB 252, and MCB 354. Concurrent enrollment in the appropriate lecture course is required. May be repeated in separate terms to a maximum of 3 hours. 1 credit.

In Section B, learners will learn how to approach primary literature, including a general strategy to reading a paper, and present the major methods and results to the class. Papers for presentations are picked by the instructor and focus on issues relevant in current events. For Spring 2021, this emphasized SAR-CoV-2 infection and COVID-19.

Course Prerequisites, Requirements met (general education, major, minor)
Prerequisite: concurrent enrollment in MCB 252

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

1. Summarize major results of a primary literature article in written and presentation form
2. Find and present relevant background information for a topic of interest
3. Assess the quality, assumptions, and limitations of a primary literature article

Course Text/Materials Information (both required and recommended)
No required texts

Course Website, Course Tools (Canvas, Moodle, LON-CAPA, Zoom, etc.)
Web Address,
Moodle at learn.illinois.edu; login via University of Illinois NetID and Password
Grading Information and Breakdown

- Discussion questions (50 points total): 35 points are earned in answering other group’s written discussion questions, and 15 points are earned for writing and answering questions for your assigned presentation. Questions are due to Dustin one week prior to your presentation. 50% reduction in points if turned in within 24 hours after the due date.

- Participation (100 points total): Learners can earn up to 80 points through creating and participating in a presentation regarding an assigned paper and 20 points through answering and discussing questions during in-class discussions of others’ papers.

- Final Paper (50 points total): Learners must complete a term paper analyzing a primary literature article of their choice in relation to a Cell Biology topic, approved by the instructor.

Point Total: 200 Points

Tentative Grading Scale for FA21 MCB 297B

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Point Cutoffs</th>
<th>Letter Grade</th>
<th>Minimum Point Cutoff</th>
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<tbody>
<tr>
<td>A+</td>
<td>200-185</td>
<td>C</td>
<td>143-136</td>
</tr>
<tr>
<td>A</td>
<td>184-177</td>
<td>C-</td>
<td>135-130</td>
</tr>
<tr>
<td>A-</td>
<td>176-170</td>
<td>D+</td>
<td>129-124</td>
</tr>
<tr>
<td>B+</td>
<td>169-164</td>
<td>D</td>
<td>123-116</td>
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<tr>
<td>B</td>
<td>163-156</td>
<td>D-</td>
<td>115-110</td>
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<tr>
<td>B-</td>
<td>155-150</td>
<td>F</td>
<td>109 or less</td>
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<tr>
<td>C+</td>
<td>149-144</td>
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# Course Calendar with Daily Schedule of Topics, Readings and Assignment Due Dates

<table>
<thead>
<tr>
<th>Week of</th>
<th>Readings and Important Due Dates</th>
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<tbody>
<tr>
<td><strong>August 23</strong></td>
<td><em>Introduction to Class and Syllabus</em></td>
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<tr>
<td></td>
<td><strong>Assign:</strong> Student Presentations</td>
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<tr>
<td><strong>August 30</strong></td>
<td><em>Instructor Example-</em> Looking at a Paper Chan (2020), First Take/Paper Selection</td>
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<tr>
<td><strong>September 6</strong></td>
<td>No Class</td>
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<tr>
<td><strong>September 13</strong></td>
<td><em>Instructor Example-</em> Looking at a Paper, Deep Diving Writing Questions</td>
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<td><strong>September 20</strong></td>
<td><em>Finding Primary Literature/ Introduce Final Paper</em></td>
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<tr>
<td><strong>September 27</strong></td>
<td><strong>Student Presentation 1:</strong> Letko, M., Marzi, A., &amp; Munster, V. (2020). Functional assessment of cell entry and receptor usage for SARS-CoV-2 and other lineage B betacoronaviruses. <em>Nature Microbiology</em>, 5(4), 562-569. <a href="https://doi.org/10.1038/s41564-020-0688-y">https://doi.org/10.1038/s41564-020-0688-y</a></td>
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<tr>
<td></td>
<td><strong>Due:</strong> Discussion Questions for Presentation 1</td>
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<tr>
<td></td>
<td><strong>Due:</strong> Discussion Questions for Presentation 2</td>
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<td></td>
<td><strong>Submit Paper Topic by 11:59 PM Central Time</strong></td>
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<tr>
<td><strong>October 11</strong></td>
<td><strong>Student Presentation 3:</strong> Ou, X., Liu, Y., Lei, X., Li, P., Mi, D., Ren, L., ... Qian, Z. (2020). Characterization of spike glycoprotein of SARS-CoV-2 on virus entry and its immune cross-reactivity with SARS-CoV. <em>Nature Communications</em>, 11(1). <a href="https://doi.org/10.1038/s41467-020-15562-9">https://doi.org/10.1038/s41467-020-15562-9</a></td>
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<tr>
<td></td>
<td><strong>Due:</strong> Discussion Questions for Presentation 3</td>
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<tr>
<td>Date</td>
<td>Event</td>
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<tr>
<td>October 18</td>
<td><strong>Student Presentation 4:</strong> Lei, C., Qian, K., Li, T., Zhang, S., Fu, W., Ding, M., &amp; Hu, S. (2020). Neutralization of SARS-CoV-2 spike pseudotyped virus by recombinant ACE2-Ig. <em>Nature Communications, 11</em>(1), 1-5. <a href="https://doi.org/10.1038/s41467-020-16048-4">https://doi.org/10.1038/s41467-020-16048-4</a></td>
</tr>
<tr>
<td>November 8</td>
<td><strong>Student Presentation 7:</strong> Liao, M., Liu, Y., Yuan, J., Wen, Y., Xu, G., Zhao, J., ... Zhang, Z. (2020). Single-cell landscape of bronchoalveolar immune cells in patients with COVID-19. <em>Nature Medicine, 26</em>(6), 842-844. <a href="https://doi.org/10.1038/s41591-020-0901-9">https://doi.org/10.1038/s41591-020-0901-9</a></td>
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<tr>
<td>November 22</td>
<td>No Class</td>
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<tr>
<td>November 29</td>
<td>Semester Wrap-Up, Reflections, and Final Questions</td>
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<tr>
<td>December 6</td>
<td>Turn in Final Review Outline by 17:00</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:
  - 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](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 you 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.
- 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.
  
  o **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.
  
  o **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.
  
  o **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 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
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
  o Discrimination & Harassment Prevention
  o Title IX
  o Accessibility & Accommodations
  o Inclusive Illinois