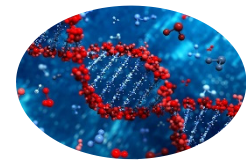




## BMB 101: Frontiers in Biochemistry

Professor: Dr. Sophia Lunt



### Lecture Information

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Time: Wednesdays 3:00 – 3:50 PM

Location: **158 Natural Resources Building**



### Instructor and Course Coordinator

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Dr. Sophia Lunt, Biochemistry & Molecular Biology

Email: [sophia@msu.edu](mailto:sophia@msu.edu) (include "BMB101" in the subject line)

Pronouns: she/her/hers



### Teaching Assistant

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Tessa Jordan, Graduate Student.

Email: [jorda180@msu.edu](mailto:jorda180@msu.edu) (include "BMB101" in the subject line)

Pronouns: she/her/hers



### BMB Academic Advisors

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Leslie Thompson, BMB  
105A Biochemistry Building

Pronouns: she/her/hers

Email: [lathomp@msu.edu](mailto:lathomp@msu.edu)

(include "BMB101" in the subject line)



Evelyn Grace, BMB

105A Biochemistry Building

Pronouns: she/her/hers

Email: [graceeve@msu.edu](mailto:graceeve@msu.edu)

(include "BMB101" in the subject line)



Instructions to schedule an appointment with Leslie or Evelyn:

[https://docs.google.com/document/d/14WBGYj9wDQTts8YXe-IL5VMuJdN7Kzz\\_9o511iwqs/edit](https://docs.google.com/document/d/14WBGYj9wDQTts8YXe-IL5VMuJdN7Kzz_9o511iwqs/edit)

### Course Description

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Biochemistry is the study of chemical processes that occur in living organisms and impacts many fields including medicine, biotechnology, pharmacology, agriculture and environmental science. A major in Biochemistry will provide you with an understanding of fundamental concepts in the field, including matter and energy transformation, homeostasis, biological information, evolution, and macromolecular structure and function. The major will prepare you for diverse career paths such as healthcare, public health, pharmaceuticals, food science, agriculture, research, forensics, cosmetics, environment, science writing, patent law, education, and sales. Successful completion of your degree will provide excellent preparation for biotechnology, pharmaceutical industry, graduate school, medical school, dentistry school, veterinary school, law school, and many others. In this course, you will:

- Learn about biochemistry topics covered in major courses
- Learn graduation requirements for a degree in Biochemistry & Molecular Biology/Biotechnology
- Learn about resources available to you to succeed
- Develop a plan for acquiring necessary skills for your future career
- Learn about the cutting-edge research being conducted in the department
- Compare possible career paths in biochemistry



## Required Technologies

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- High speed internet access (minimum internet speed of 25 Mbps recommended).
- D2L (<http://d2l.msu.edu>). You will access online lectures, course materials, homework assignments, and additional resources through D2L.
- **iClicker** (free for MSU students)
  - Please **use your MSU email address** when creating or linking an account.
  - Please join using this link: <https://join.iclicker.com/IPJK>
  - Please use the following class code to register for iClicker class: **IPJK**
  - You should not be prompted for payment. If you have used iClicker Reef in the past, the interface may say that your subscription has expired. However, you do not need to purchase a subscription as long as you are taking courses at MSU. The product should still work. If the product does not work, contact iClicker support at <https://www.iclicker.com/support>. If you have paid for iClicker Reef accidentally, please contact iClicker support for a refund.
  - Instructions to create an iClicker cloud account and register a remote: <https://mhe.my.site.com/iclicker/s/article/How-to-Create-an-iClicker-Student-Account>

## Technical Assistance

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If you need technical assistance at any time during the course, or to report a problem, you can:

- Visit the MSU Help site at <http://help.msu.edu>
- Visit the Desire2Learn Help Site at <http://help.d2l.msu.edu>
- Call the MSU IT Service Desk at (517) 432-6200, (844)678-6200, or e-mail at [ithelp@msu.edu](mailto:ithelp@msu.edu)

## Expectations

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- Lectures will be delivered in person in 158 Natural Resources Building on Wednesdays at 3pm.
- Your attendance is expected for all classes. If you are unable to come to class, you must study the lecture slides posted on D2L and complete the homework. You may make up for missed attendance credit by completing extra credit assignments.
- You are expected to complete the weekly assignment and the final exam.
- For illness, please provide a doctor's note to Dr. Lunt via email.
- Academic honesty is central to the educational process. Honor yourself and your peers by following the code of academic honesty. Acts of academic dishonesty are serious offenses within the University community. Suspension from the University could be the consequence for acts of academic dishonesty. At MSU, [General Student Regulation 1.00](#) states in part that "no student shall claim or submit the academic work of another as one's own."

## Policies and Resources

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- **Inclusive classroom:** We are committed to creating a supportive and welcoming environment where all students can pursue academic and personal success. If you have a concern about the something that occurs in class, please contact one of us to so that we can address the situation.
- **Chosen Name and Pronoun Policy:** All people have the right to be addressed and referred to in accordance with their personal identity. Many people do not identify with the name on their birth certificate, school ID, or other forms of identification. Please advise us at any point if you need to update your name and/or pronouns in my records. If you would like to change your name, you can do that through StulInfo. Your gender marker can be changed by filing a request through the Office of the Registrar. More information: <https://lbgtrc.msu.edu/trans-msu/msu-name-and-gender.html>.

- **Policy on religious observance:** MSU permits students to observe religious holidays. If you will be absent on your religious holiday, please make arrangements with Dr. Lunt in advance.
- **Mental health concerns** or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. Services are available to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of confidential mental health services available via the Counseling & Psychiatric Services (CAPS) website at <https://caps.msu.edu/>
- **Mandatory Reporting Policy:** As employees of MSU, we have the responsibility to report any instances of sexual harassment, sexual violence and/or other forms of prohibited discrimination. If you would rather share information about sexual harassment, sexual violence or discrimination to a confidential employee who does not have this reporting responsibility, you can find a list of those individuals here: <https://centerforsurvivors.msu.edu/resources-and-coping/resources-and-coping-2/>.
- **The Spartan Code of Honor Academic Pledge:** “As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor in ownership is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.” Spartan Code of Honor Academic Pledge and Student Rights and Responsibilities: <http://splife.studentlife.msu.edu/spartan-code-of-honor-academic-pledge>.
- **Policy on Accommodations for Students with Disabilities:** MSU is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at <https://www.rcpd.msu.edu/>. Once your eligibility for an accommodation has been determined, you will be issued a verified individual services accommodation (“VISA”) form. Please present this form to me at the start of the term.
- **Grief Policy:** If you experience death of a family member or emotional distress from a similar tragedy, please review the Grief Absence Policy: <https://msu.edu/unit/ombud./classroom-policies/index.html#GriefAbsencePolicy>.
- **The Office of the University Ombudsperson** (<https://ombud.msu.edu/>) offers students a confidential and impartial place to discuss academic and nonacademic concerns. Staff will assist students to define problems, explore options, outline strategies, review policies, find resources, and manage expectations while upholding the values of respect, integrity, diversity and freedom from bias or harassment.
- **The Office of Institutional Equity (OIE)** reviews concerns related to discrimination and harassment under the University Anti-Discrimination Policy ([https://hr.msu.edu/policies-procedures/university-wide/ADP\\_policy.html](https://hr.msu.edu/policies-procedures/university-wide/ADP_policy.html)) and Policy on Relationship Violence and Sexual Misconduct ([https://hr.msu.edu/policies-procedures/university-wide/RVSM\\_policy.html](https://hr.msu.edu/policies-procedures/university-wide/RVSM_policy.html)). If you experience or witness acts of bias, discrimination, or harassment, you can report these to: <https://oie.msu.edu/>
- **The Dean of Students Office** (<https://www.deanofstudents.msu.edu/>) supports student success by ensuring a civil and inclusive learning environment based on academic and personal integrity. All community members have a responsibility for establishing, maintaining, and fostering a commitment to our shared values, ethical decision-making, and personal and collective excellence. The Dean of Students Office supports personal and community accountability and addresses conduct inconsistent with the Spartan Code of Honor with honesty, respect, and fairness.

## Grading

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Class participation	22 points (2 points per class. Must attend 11 classes.)
D2L assignments	60 points (5 points per assignment. Must complete 12.)
Final exam (open note)	18 points
<b>TOTAL</b>	<b>100 points</b>

Grade	Points
4.0	≥ 90
3.5	≥ 85

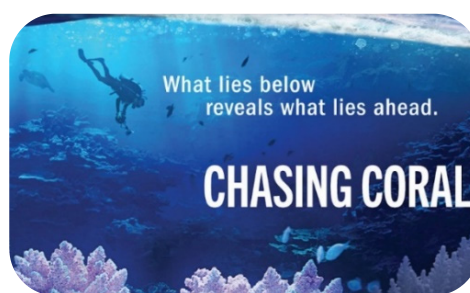
Grade	Points
3.0	≥ 80
2.5	≥ 75

Grade	Points
2.0	≥ 70
1.5	≥ 65

Grade	Points
1.0	≥ 60
0.0	< 60

- **Participation** (22 points: 2 points per class x 11 classes)
  - There are a total of 11 live lectures (10 in-person and 1 Zoom) and 1 lecture recording. You must attend the 11 live classes to receive full class participation credit.
  - Participation will be recorded using **iClicker**. You must attend class and use your clicker to receive points. Having a friend use your clicker or participating in clicker questions while not in the classroom is a breach of academic integrity. Through the semester, there may be unannounced attendance checks to verify in-person attendance.
  - If you are unable to come to class, please study the lecture notes on D2L, catch up with classmates, and complete the homework.
  - You may make up for missed attendance credit by completing extra credit assignments.
- **D2L assignments** (60 points: 5 points per assignment x 12 assignments)
  - Must be completed in D2L and is due before the beginning of next class.
  - Each assignment consists of 10 questions. You will receive 0.5 point per correct answer.
  - Late assignments will not be accepted. If you miss a homework assignment, you may make up for it by completing extra credit assignments.
- **Final exam** (18 points) – **Wednesday, December 6, 3-3:50pm**.
  - The final will be administered through D2L. Please use a laptop, tablet, or smart phone to take the online final exam.
  - You may use your notes, internet, and laptop, but NOT your classmates.
- **Extra credit:** You may get up to 10 extra credit points (2 points per event) by attending/completing up to 5 of the events below and writing a 250-word essay describing the event, what you learned, and how it relates to biochemistry (except for the first event). To obtain extra credit, please email your essay to the TA within 1 week of participating in the event. Extra credit assignments will be accepted until **December 6**.
  - Meet with one of your BMB Advisors, Leslie or Evelyn, to complete your 4-year plan. Leslie and Evelyn will keep track of students who complete this assignment, so you do not have to email your TA after meeting with your BMB Advisor.
  - Meet with a Student Ambassador from the MSU Undergraduate Research Office. Details here: <https://venture.msu.edu/ambassadors>
  - Undergraduate Research Workshops: <https://urca.msu.edu/workshops>
  - BMB Colloquia: <https://bmb.natsci.msu.edu/research/seminars/bmb-colloquium-series/>
  - Biochemistry Club: <https://bmb.natsci.msu.edu/undergraduate/undergraduate-club/>
  - MSU Career Fair or other career events: <https://careernetwork.msu.edu/events/>

- Other department seminars (Physiology, Pharmacology & Toxicology, Molecular Plant Science, Microbiology and Molecular Genetics, Plant Biology, Science At The Edge, Integrative Biology, Institute for Quantitative Health Science and Engineering, Computational Math Science and Engineering, Horticulture, etc.)
- Watch the documentaries below:
  - Documentary “Picture a Scientist”: <http://catalog.lib.msu.edu/record=b14200933~S39a>. Click on the link under "Available Online" & log on with MSU credentials.
  - Documentary “Chasing Coral”: <https://www.youtube.com/watch?v=aGGBGcjdjXA>



### Important Dates to Remember

- D2L homework assignments are due **before the beginning of next class**. Late assignments will not be accepted. If you miss a homework assignment, you may make up for it by completing extra credit assignments.
- **December 6:** Open note final exam on D2L. Please bring your laptop, tablet, or smart phone to class. This is the last day extra credit assignments will be accepted.

Week	Date	Topic	Homework	Due
1	9/6	Topics in Biochemistry	Quiz 1 on D2L	9/13
2	9/13	Drug Discovery	Quiz 2 on D2L	9/20
3	9/20	Academic Success Strategies (Zoom)	Quiz 3 on D2L	9/27
4	9/27	Undergraduate Research & Internships	Quiz 4 on D2L	10/4
5	10/4	BMB major & 4-year plan	Quiz 5 on D2L	10/11
6	10/11	How to Read a Journal Article (Recording)	Quiz 6 on D2L	10/18
7	10/18	Career Exploration	Quiz 7 on D2L	10/25
8	10/25	Mental Health	Quiz 8 on D2L	11/1
9	11/1	Finding Opportunities	Quiz 9 on D2L	11/8
10	11/8	Graduate and Professional Schools	Quiz 10 on D2L	11/15
11	11/15	Skills Articulation	Quiz 11 on D2L	11/29
12	11/22	No class – Thanksgiving break		
13	11/29	School Life Balance	Quiz 12 on D2L	12/6
14	12/6	Final exam (open note)		