# BMB 101: Frontiers in Biochemistry, Fall 2020

Wednesdays 3:00 - 3:50 PM, Online Synchronous Course

#### **Zoom Lecture Information**

Time: Wednesdays 03:00 PM Eastern Time (US and Canada)

https://msu.zoom.us/j/95474537416

Meeting ID: 954 7453 7416

**Passcode: 101101** 

One tap mobile

+16468769923,,95474537416# US (New York)

+13017158592,,95474537416# US (Germantown)

Dial by your location: +1 646 876 9923 US (New York); +1 301 715 8592 US (Germantown); +1 312 626 6799 US (Chicago); +1 669 900 6833 US (San Jose); +1 253 215 8782 US (Tacoma); +1 346 248 7799 US (Houston)

Find your local number: https://msu.zoom.us/u/adCOwSDtsl

Join by SIP: 95474537416@zoomcrc.com

Join by H.323: 162.255.37.11 (US West); 162.255.36.11 (US East); 115.114.131.7 (India Mumbai);

115.114.115.7 (India Hyderabad); 213.19.144.110 (Amsterdam Netherlands); 213.244.140.110 (Germany);

103.122.166.55 (Australia); 149.137.40.110 (Singapore); 64.211.144.160 (Brazil); 69.174.57.160 (Canada);

207.226.132.110 (Japan)

Join by Skype for Business

https://msu.zoom.us/skype/95474537416

# **Instructor and Course Coordinator**

Dr. Sophia Lunt, Biochemistry & Molecular Biology

522A Biochemistry Building

Email: <a href="mailto:sophia@msu.edu">sophia@msu.edu</a> (must include "BMB101" in the subject line)

Pronouns: she/her/hers

# **Teaching Assistant**

Roberto Espinoza Corral, BMB

Email: espino95@msu.edu (must include "BMB101" in the subject line)

Pronouns: he/him/his

## **BMB Academic Advisors**

Kendra Pyle, BMB

105B Biochemistry Building

Leslie Thompson, BMB

305 Biochemistry Building

Pronouns: she/her/hers
Email: kpyle@msu.edu

Pronouns: she/her/hers
Email: lathomp@msu.edu

(must include "BMB101" in the subject line) (must include "BMB101" in the subject line) To schedule an appointment with Kendra or Leslie, log in to the Student Success Dashboard

## **Course Description**

A major in Biochemistry will provide you with an understanding of fundamental concepts in the field and prepare you for diverse career paths. Biochemistry is the study of chemical processes that occur in living organisms and impacts many fields including medicine, biotechnology, pharmacology, agriculture and environmental science. Successful completion of your degree will provide excellent preparation for industry, professional schools, graduate schools, and many other career paths. This course is designed to help you succeed as a Biochemistry major through the following objectives:

- Learn about the Biochemistry major and topics covered in major courses
- Compare possible career paths in biochemistry

- Learn about resources available to you to succeed as a Biochemistry major
- Develop a plan for acquiring necessary skills for your future career
- Learn about the cutting-edge research being conducted in the department

# **Required Technologies**

- High speed internet access (minimum internet speed of 25 Mbps recommended). Companies offering students free or reduced cost internet: https://remote.msu.edu/learning/internet.html
- Zoom (<a href="https://zoom.us/">https://zoom.us/</a>). Lectures will be delivered via Zoom. You will have to join by Zoom every week. If you are unable to join during class time, you may watch the lecture recording on D2L.
- D2L (<a href="http://d2l.msu.edu">http://d2l.msu.edu</a>). You will access online lectures, course materials, homework assignments, and additional resources through D2L.

#### **Technical Assistance**

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 <a href="http://help.d2l.msu.edu">http://help.d2l.msu.edu</a>
- Call the MSU IT Service Desk at (517)432-6200, (844)678-6200, or e-mail at ithelp@msu.edu
- Request assistance navigating and requesting instructional design help: <a href="https://tech.msu.edu/service-catalog/teaching/instructional-design-development/">https://tech.msu.edu/service-catalog/teaching/instructional-design-development/</a>
- Browser/mobile support for D2L: https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\_support.htm

#### **Textbook**

No textbook is required for this course.

## **Expectations**

- Lectures will be delivered **online** via Zoom on Wednesdays at 3pm Eastern Time. They will also be recorded and posted in D2L.
- Your attendance is expected at all classes. If you are unable to join online due to time zone differences or technical difficulties, you must watch the lecture recording on D2L.
- You are expected to complete the weekly assignment, passport, and group activity.
- Academic honesty is central to the educational process. 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, <u>General Student Regulation 1.00</u> states in part that "no student
  shall claim or submit the academic work of another as one's own."

## **Learning Continuity**

Should you become unable to attend class for an extended period of time due to illness, please provide a doctor's note to Dr. Lunt via email.

- You will be given additional time to watch lectures (posted in D2L)
- You will be given additional time to complete your assignments (homework, Passport, Group Project)

## **Course Continuity**

Should the instructor be required to be absent for an extended period of time, the TA or one of the BMB Academic Advisors will continue leading the course. If a speaker is unavailable due to illness, a class may be cancelled. Announcements will be communicated by email.

#### **Policies and Resources**

• **Inclusive classroom:** We are committed to creating a supportive and welcoming virtual 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.

- 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." Information on the Spartan Code of Honor Academic Pledge and Student Rights and Responsibilities: <a href="http://splife.studentlife.msu.edu/spartan-code-of-honor-academic-pledge">http://splife.studentlife.msu.edu/spartan-code-of-honor-academic-pledge</a>.
- 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 <a href="https://www.rcpd.msu.edu/">https://www.rcpd.msu.edu/</a>. 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 and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date will be honored whenever possible.
- 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 StuInfo. Your gender marker can be changed by filing a request through the Office of the Registrar. More information can be found at: <a href="https://lbgtrc.msu.edu/trans-msu/msu-name-and-gender.html">https://lbgtrc.msu.edu/trans-msu/msu-name-and-gender.html</a>.
- Policy on religious observance: It is the policy of MSU to permit students to observe holidays set aside by
  their chosen religious faith. If you will be absent from class on your religious holiday, please make
  arrangements with Dr. Lunt in advance.
- **Grief Policy**: If you experience death of a family member or emotional distress from a similar tragedy, please review the Grief Absence Policy: <a href="https://msu.edu/unit/ombud./classroom-policies/index.html#GriefAbsencePolicy">https://msu.edu/unit/ombud./classroom-policies/index.html#GriefAbsencePolicy</a>. Please contact Dr. Lunt to let her know what has happened.
- The Office of the University Ombudsperson (<a href="https://ombud.msu.edu/">https://ombud.msu.edu/</a>) 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.
- 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
  <a href="https://caps.msu.edu/">https://caps.msu.edu/</a>
- The Office of Institutional Equity (OIE) reviews concerns related to discrimination and harassment based on sex, gender, gender identity, race, national origin, religion, disability status, and any other protected categories under the University Anti-Discrimination Policy (<a href="https://hr.msu.edu/policies-procedures/university-wide/ADP\_policy.html">https://hr.msu.edu/policies-procedures/university-wide/ADP\_policy.html</a>) and Policy on Relationship Violence and Sexual Misconduct (<a href="https://hr.msu.edu/policies-procedures/university-wide/RVSM\_policy.html">https://hr.msu.edu/policies-procedures/university-wide/RVSM\_policy.html</a>). If you experience or witness acts of bias, discrimination, or harassment, you can report these to: <a href="https://oie.msu.edu/">https://oie.msu.edu/</a>
- The Dean of Students Office (<a href="https://www.deanofstudents.msu.edu/">https://www.deanofstudents.msu.edu/</a>) 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.

D2L assignments	40 points (4 points per assignment)
Passport	20 points
Group project	20 points
Final exam (open note)	20 points

#### **TOTAL**

Grade	Points
4.0	≥ 90
3.5	≥ 85
3.0	≥ 80
2.5	≥ 75

Grade	Points
2.0	≥ 70
1.5	≥ 65
1.0	≥ 60
0.0	< 60

- D2L assignments (4 points per assignment)
  - All assignments must be typed and submitted through D2L.
  - Assignments are due before the beginning of next class.
- Passport (20 points) due 11/18/2020
  - Meet with Leslie or Kendra to complete your 4-year plan (5 points)
  - Meet with a career advisor or a professor during office hours (5 points)
  - Attend one of the Career Service Network Fall Virtual Workshop Series Events (see flyer in D2L) (5 points)

100 points

- o Complete one of the following (5 points):
  - Attend a help room for one of your other classes
  - Attend a student organization meeting (besides the BMB Club)
  - Attend a study abroad info session or advising appointment: https://educationabroad.isp.msu.edu/
  - Attend a help session at the Writing Center: https://writing.msu.edu/
- Group Project (20 points) due 12/2/2020
  - The goal of this assignment is to introduce a diverse range of career options available for BMB students. Groups of students (4-5 students per group) will be assigned a different career option to explore. You will receive an online questionnaire during the week of Sept. 14<sup>th</sup> that will be used to create groups.
  - Students will research their assigned career and prepare a PowerPoint slide describing the main responsibilities of the job, skills needed to succeed in this role and benefits associated with this career path (i.e. salary, health insurance, work hours/style, etc.).
  - o Group slides will be uploaded on D2L (15 points) and each student will comment on 2 career paths different than the ones they were assigned (5 points).
  - Grades will be determined based on completion of the powerpoint slide and participation in the discussion forum.
- Final exam (20 points) given during the last day of class (12/9/2020).
  - The final will be administered through D2L. Please bring a laptop.
  - You will only have 40 minutes to complete the final. Downloading class material from D2L ahead of time is highly recommended.
  - Some of the questions will be given to you ahead of time in your passport.
  - o You may use your notes, internet, and laptop, but NOT your classmates.
- Extra credit: you may get up to 8 extra credit points (2 points per event) by attending up to 4 of the events below and writing a 250 word essay describing the event and what you learned. To obtain extra credit, please email your essay to the TA within 1 week of participating in the event.
  - Biochemistry Colloquia: Thursdays at 11 AM via Zoom
    - Please click the link below to join the webinar:
    - https://msu.zoom.us/j/99739848848
    - Webinar ID: 997 3984 8848
    - Passcode: 435056

- Or iPhone one-tap :
- US: +13126266799,,99739848848# or +16468769923,,99739848848#
- Or Telephone:
- Dial(for higher quality, dial a number based on your current location):
- US: +1 312 626 6799 or +1 646 876 9923 or +1 301 715 8592 or +1 346 248 7799 or +1 669 900 6833 or +1 253 215 8782
- International numbers available: https://msu.zoom.us/u/abl0qdg19w
- 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.)
- Biochemistry Club: Meets twice monthly on Thursdays at 6pm via Zoom
   Meeting dates: <a href="https://bmb.natsci.msu.edu/undergraduate/undergraduate-club/">https://bmb.natsci.msu.edu/undergraduate/undergraduate-club/</a>
- o MSU Career Fair or other career event: <a href="https://careernetwork.msu.edu/events/">https://careernetwork.msu.edu/events/</a>

## Important Dates to Remember

- D2L homework assignments are due before the beginning of next class
- November 18, 2020: Passport due
- **December 2, 2020**: Group Project due
- December 9, 2020: Open note final exam on D2L

Wk	Date	Topic	Instructor	Assignment	Due
1	9/9	Welcome & Course Overview	Dr. Sophia Lunt	Homework in D2L	9/16
2	9/16	Topics in Biochemistry	Dr. Sophia Lunt	Homework in D2L	9/23
3	9/23	Tips for Online Learning	Sam Drake, Collaborative Learning Center	Homework in D2L	9/30
4	9/30	Academic Success Strategies	Susan Stoltzfus	Passport	11/8
5	10/7	Overview of BMB major & 4-year plan	Kendra Pyle and Leslie Thompson	Passport	11/8
6	10/14	Research Opportunities and Internships	Dr. Sandra Hammer & Student panel	Group Project	12/2
7	10/21	Resume Building & Interviewing	Brian Telfor	Passport	11/8
8	10/28	How to Read a Journal Article	Dr. Sophia Lunt	Homework in D2L	11/4
9	11/4	Graduate and Professional Schools	Dr. Roberto Espinoza Corral & Panel	Homework in D2L	11/11
10	11/11	Drugs Used for COVID-19	Dr. Kris Chan	Homework in D2L Passport due 11/18	11/18
11	11/18	Careers in Biochemistry	Dr. Sophia Lunt Alumni panel	Group Project	12/2
12	11/25	No class			
13	12/2	Fructose metabolism & metabolic syndrome	Dr. Sean Weise	Homework in D2L	12/9
14	12/9	Open note final exam	Dr. Sophia Lunt	Online final exam	12/9