

BMB 101: Frontiers in Biochemistry
Wednesdays 3:00 – 3:50 PM
1200 Molecular Plant Sciences Building
Fall 2019

Instructor and Course Coordinator

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Teaching Assistant

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BMB Academic Advisors

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Leslie Thompson
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305 Biochemistry Building
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(must include "BMB101" in the subject line)

To schedule an appointment with Kendra or Leslie, log in to the [Student Success Dashboard](#)

Course Objectives

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

Expectations

- Your attendance and participation is expected at all classes.
- Attendance will be taken through a sign-in sheet. Please sign next to your name.
- If you miss a class, you may make up for it through extra credit (see next section). You are expected to complete the weekly assignment even if you miss class.
- 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, [General Student Regulation 1.00](#) states in part that “no student shall claim or submit the academic work of another as one’s own.”

Grading

| | |
|------------------------|-------------------------------------|
| Attendance | 28 points (2 points per class) |
| D2L assignments | 40 points (4 points per assignment) |
| Passport | 12 points |
| Final exam (open note) | 20 points |
| TOTAL | 100 points |

| 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 |

- Attendance (2 points per class) – please sign next to your name on the sign-in sheet during the first 10 minutes of each class.
- 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 (12 points) – due on the last day of class
 - Meet with Leslie or Kendra to complete your 4-year plan (4 points)
 - Meet with a career advisor or a professor during office hours (4 points)
 - Complete one of the following (4 points):
 - Attend a help room for one of your other classes
 - Attend a student organization meeting
 - Attend a workshop (e.g., academic success)
 - Take an assignment to the Writing Center
- Final exam (20 points) – given during the last day of class.
 - 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.
 - 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 in 101 Biochemistry
 - 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 in 1400 BPS. Meeting dates: <https://bmb.natsci.msu.edu/undergraduate/undergraduate-club/>
 - MSU Career Fair: <http://careernetwork.msu.edu/jobs-internships/Career-Fairs/index.html>
 - Other MSU career events: <https://careernetwork.msu.edu/resources-tools/workshops.html>

| Wk | Date | Topic | Instructor | Assignment | Due |
|----|-------|--|---------------------------------|---------------------------|-------|
| 1 | 9/4 | Welcome & Course Overview | Dr. Sophia Lunt | Homework in D2L | 9/11 |
| 2 | 9/11 | Topics in Biochemistry | Dr. Sophia Lunt | Homework in D2L | 9/18 |
| 3 | 9/18 | Academic Success Strategies | Susan Stoltzfus | Passport | 12/4 |
| 4 | 9/25 | Overview of BMB major & 4-year plan | Kendra Pyle and Leslie Thompson | Passport | 12/4 |
| 5 | 10/2 | Resume Building & Interviewing | Brian Telfor | Passport | 12/4 |
| 6 | 10/9 | First Impressions & Elevator Pitch | Jack Pyle | Homework in D2L | 10/16 |
| 7 | 10/16 | Research Opportunities and Internships | Kendra Pyle student panel | Homework in D2L | 10/23 |
| 8 | 10/23 | How to Read a Journal Article | Dr. Lori Seischab | Worksheet | 10/30 |
| 9 | 10/30 | Graduate and Professional Schools | Emily Lanier Student panel | Homework in D2L | 11/6 |
| 10 | 11/6 | Understanding Exposomes | Dr. Dan Jones | Homework in D2L | 11/13 |
| 11 | 11/13 | Genetically Modified Organisms (GMOs) | Dr. Sean Weise | Homework in D2L | 11/20 |
| 12 | 11/20 | Industry Career Panel | Biochemistry alumni | Homework in D2L | 11/27 |
| 13 | 11/27 | Careers in Biochemistry | Dr. Sophia Lunt | Homework in D2L | 12/4 |
| 14 | 12/4 | Course Recap, Open note final | Dr. Sophia Lunt | In-class, open note final | |

Policies

- **Policy on Academic Freedom and Integrity:** Article 2.3.3 of the Academic Freedom Report states that "the student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." The University's General Student Regulations 1.0, Protection of Scholarship and Grades, and the all University Policy on Integrity of Scholarship and Grades, which are included in Spartan Life: Student Handbook and Resource Guide, apply to student conduct.
- **Policy on Accommodations for Students with Disabilities:** Students with disabilities should contact the [Resource Center for Persons with Disabilities](#) to establish accommodations. It is up to you to let the professor know if you need an accommodation.
- **Name and Pronouns:** All people have the right to be addressed and referred to in accordance with their personal identity. Please advise me of preferences early in the semester so that I may make appropriate changes to my records. [Information on MSU's preferred name policy.](#)