



# LBC Undergraduate Learning Assistant (ULA) Job Descriptions and Hiring Practices

## Table of Contents:

Lyman Briggs College courses that are hiring ULAs for Fall 2026

<b>Mathematics</b> .....	<b>2</b>
Course: LB117 Functions and Trigonometry .....	2
Course: LB118 Calculus I .....	3
Course: LB119 Calculus II .....	3
Course: STT231 Statistics for Scientists .....	4
<b>Biology</b> .....	<b>5</b>
Course: LB144 Organismal Biology & LB145 Cellular and Molecular Biology ...	5
<b>Chemistry</b> .....	<b>9</b>
Course: LB155 Introduction to Quantitative Science and Research .....	9
Courses: LB171 & LB172 General Chemistry I & II Lecture .....	11
Courses: LB171L & LB172L General Chemistry I & II Lab .....	11
Course: LB271 Organic Chemistry I Lecture .....	12
<b>Physics</b> .....	<b>13</b>
LB273 Physics I .....	13

Please note, workload examples in this document are illustrative and may vary by semester. Specific hour expectations are confirmed with faculty supervisors during hiring.



# Mathematics

## Course: LB117 Functions and Trigonometry

### Job Description:

Lead weekly recitation, staff the math help room, assist with grading and attend a weekly meeting.

Hour-by-hour breakdown per week:

- Lead recitation: 1 hour
- Staff math help room: 2 hours
- Grading: 1 hour
- Weekly meeting: 1 hour

### How hiring decisions are made:

Must have completed LB 118 or higher. Important positive factors in hiring decisions include high grades (3.0 or higher in all relevant mathematics courses), previous experience as a ULA or tutor, interest in the teaching profession, declared as math major or minor or a related major/minor in the mathematical sciences, strong references from LBC mathematics instructors, available to staff time slots that need to be filled, strong responses to application prompts.



## **Course: LB118 Calculus I**

### **Job Description:**

Lead weekly recitation, staff the math help room, assist with grading, and attend a weekly meeting.

Hour-by-hour breakdown per week:

- Lead recitation: 1 hour
- Staff math help room: 2 hours
- Grading: 1 hour
- Weekly meeting: 1 hour

### **How hiring decisions are made:**

Must have completed LB 119 or higher. Important positive factors in hiring decisions include high grades (3.0 or higher in all relevant mathematics courses), previous experience as a ULA or tutor, interest in the teaching profession, declared as math major or minor or a related major/minor in the mathematical sciences, strong references from LBC mathematics instructors, available to staff time slots that need to be filled, strong responses to application prompts.

## **Course: LB119 Calculus II**

### **Job Description:**

Lead weekly recitation, staff the math help room, assist with grading, and attend weekly meeting.

Hour-by-hour breakdown per week:

- Lead recitation: 1 hour
- Staff math help room: 2 hours
- Grading: 1 hour
- Weekly meeting: 1 hour



### How hiring decisions are made:

Must have completed LB 220 (Calculus III) or higher. Important positive factors in hiring decisions include high grades (3.0 or higher in all relevant mathematics courses), previous experience as a ULA or tutor, interest in the teaching profession, declared as math major or minor or a related major/minor in the mathematical sciences, strong references from LBC mathematics instructors, available to staff time slots that need to be filled, strong responses to application prompts.

## Course: STT231 Statistics for Scientists

### Job Description:

Lead weekly recitations, grade peer writing assignments, assist in grading exams and homework, hold office hours, and review sessions before exams.

Hour-by-hour breakdown per week:

- Lead recitation: 1 hour
- Staff math help room: 2 hours
- Grading: 1 hour
- Weekly meeting: 1 hour

### How hiring decisions are made:

Must have completed at least one stats course beyond STT 231. Experience working in the statistical learning center and/or familiarity with core statistical tests such as the chi-square tests, ANOVA and inference for linear regression is considered.



# Biology

## Course: LB144 Organismal Biology & LB145 Cellular and Molecular Biology

### How hiring decisions are made

#### Minimal Requirements for LBC Biology ULAs:

- Students must have an MSU GPA of 2.75 or higher
- Students must have completed both LB144 and LB145 before starting as an LA.
- Applicants best qualified to serve as LAs for LB144 and 145 are students who completed both courses and did well in both. (Ideally, earning a GPA of 3.0 or higher in both).
- Applicants must be able to work 10 hrs/week and be willing to serve as LA for both LB144 and LB145.

#### Biology ULA Interview Process:

- 15-week interview #1: Qualified applicants were observed while enrolled as a student in Biology 1 (LB144) both in lecture and lab by their instructors. Those who exhibited understanding of topics and good social skills working with/mentoring others, were noted by faculty and staff of the course.
- 15-week interview #2: As you might predict, once again, qualified applicants were observed while enrolled as students in Biology 2 (LB145) in lecture and lab by their instructors. Those who again exhibited understanding of topics and good social skills working with/mentoring others are noted by faculty and staff of the course, and some are recruited to apply to be a Biology LA.

#### Biology ULA Selection Criteria/Qualifications used to select the best applicants:

- A high MSU GPA and strong grades in LB144 and 145 are good, but other qualifications are equally important.
- Returning experienced LA's, who have done well in the position, are given priority for rehire.
- Students who are currently Lyman Briggs majors get priority over those who are not.
- Students who will be living in Holmes Hall tend to get priority over those living off campus.
- Confidence and comfort with terminology and laboratory experiments are very important for both Lab and Lecture LAs.
- Confidence and comfort working with other students, slowly and patiently giving support, is extremely desirable for both Lab and Lecture LAs.



- Demonstrating comfort and confidence with laboratory tools, with scientific thinking, in particular with helping others learn biology, are important qualifications for being both Lab and Lecture LAs.
- Lab LAs for biology ideally are applicants who did well as students when completing those particular lab experiments. (For example: applicants who experienced the "The Bird lab" or "Avida-ED lab" when they were students in the course are considered better qualified and thus selected for a job running the "The Bird lab" or "Avida-ED lab" (this is a big consideration if in the upcoming year courses will once again be using the "The Bird lab" or "Avida-ED lab").
- Lecture LAs for biology ideally are applicants who experienced the lecture topics, readings, homework, and pedagogies used in courses that will be offered in the upcoming year, and are therefore considered better qualified to be a lecture LA for those courses (for example, if Profs X&Y use online Evo-Ed.com modules throughout the semester as a form of textbook, and students perform case studies during each lecture, applicants who experienced that as a student are far better qualified to serve as an LA for those courses in the upcoming year).

## Job Description

**Course and Context:** LB144 and LB145 are introductory biology courses, taken mainly by science majors, most in various biological fields (90%+ of LBC students major in a biology field). The main content goals of these classes are to introduce concepts in organismal and cellular & molecular biology. In addition, skills goals include developing science processes, teamwork, and communication skills. Each course consists of a lecture and a lab component. LB144 consists of a 48-student lecture (80 min, twice a week) and 24-student lab (170min, once a week) sections. LB145 consists of a 48-student lecture (80 min, twice a week) and 24-student lab (110min, twice a week) sections. The teaching team consists of 1 professor, some undergraduate learning assistants and sometimes a graduate teaching assistant, too.

**ULA Training and Preparation:** LAs participate in a pre-semester training session that covers general pedagogical concerns and tools (How to create an inclusive classroom, how to communicate effectively etc.) and content-specific training (biological safety, hazardous safety training, course content and structure-specific training). In addition, LAs attend weekly meetings to plan and prepare for the coming week. Weekly meetings focus on reflecting on the past week, discussing general approaches to facilitating student learning, such as "how to ask probing questions, how to resolve team conflicts, how to promote student participation etc." as well as content-specific learning strategies like common student misconceptions and struggles.

**Learning Environment:** Introductory Biology (LB144 & 145) courses are reformed and



often flipped-lecture and lab experiences use evidence-based teaching methods to ensure actual learning occurs, not just teaching. The focus tends to be on professional practice (i.e., skills), like experimental design, as well as communication. In lecture, the teaching sometimes lasts longer than topics/chapters, going into greater depth. Laboratory experiences are designed to train students for entry into a professional research setting. They too tend to focus on practice of scientific thinking and design skills (i.e. “doing biology”) in semester-long projects, rather than many 3-hr-long “cookbook” labs that briefly expose students to traditional methods.

**The Roles of the ULA:** Here are examples of things you will do. Since you will have taken 144/145 as a student, you will have observed LAs doing this in lab and in lecture.

- facilitating group discussions / in-class lecture and lab activities
- carrying microphones to each student who asks or answers a question, so they are heard.
- randomly picking from a deck of name cards to engage everyone.
- leading 5-minute “journal clubs” during lecture or lab. Anytime students are challenged to evaluate a figure from a publication, the ULAs often take the lead, guiding students in the discussion.
- in the laboratory, in addition to preparing equipment and supplies, LAs assist the students in idea development, project completion, and provide support in several roles inside and outside the course.
- The LAs act as role models for the students in the class, which has been found to be especially important for women and non-majority students.

Often a LA will work in BOTH lab and lecture; sometimes they will focus on just one.



**Example time breakdown:**

Regular Weekly Time Commitments for Lecture ULAs

- In-class Instruction 3.0 hours
  - Prep Time 2.0 hours
  - Prep Meeting 1.0 hour
  - Outside-Class Grading/Open Office Hours 4.0 hours
- TOTAL: ~10.0 hours

Regular Weekly Time Commitments for Lab ULAs

- In-Lab Instruction 4.5 hours
  - Prep Meeting 1.0 hours
  - Prep Time/Grading 3.5 hours
  - Open Lab Office Hours (OHs) 1.0 hour
- TOTAL: ~10.0 hours

Note: These are general breakdowns of potential weekly time commitments. These vary depending on the semester or instructor and will be confirmed in the hiring process



# Chemistry

## Course: LB155 Introduction to Quantitative Science and Research

### Job Description (lecture + lab):

The INQUIRE ULAs are hired to assist with the lecture, labs, workshops, field trips, and other social events. The ULAs are hired for either 4 or 8 hours each week. The ULAs duties are assigned in a way that balances the duties and the needs of the course. The responsibilities may include a combination of the following duties:

- Support 1- 2 lecture sessions each week
- Support 1- 2 lab sessions each week
- Co-lead 1 - 2 one-hour workshop sessions each week
- Hold 1 - 3 hours of office hour each week
- Assist in grading assignments
- Attend a 1-hour LA meeting each week

Examples of weekly assigned hours:

### 5-hr assignment: Lab

Support lab session	2 hr
Attend ULA meeting	1 hr
Co-lead 1 workshop	1 hr
Office hours	1 hr

### 10-hr assignment: Lecture

Support 2 lecture sessions	2 hr
Attend ULA meeting	1 hr
Assist with grading	2 hr
Office hours	3 hr
Co-lead 1 workshop	1



### 10- hr assignment - lecture AND Lab

Support 1 lecture sessions	1 hr
Support 1 lab session	2 hr
Attend ULA meeting	1 hr
Assist with grading	2 hr
Office hours	2 hr
Co-lead 2 workshops	2 hr

### Job Description (lecture + recitation):

The INQUIRE ULAs are hired to assist with the lecture and recitation. The ULAs are hired for 10 hours each week. The ULAs duties are assigned in a way that balances the duties and the needs of the course. The responsibilities may include a combination of the following duties:

- 2 hours of lecture/week
- 1 hour recitation/week
- 1 hour emails & prep/week
- 1 hour grading (banked)/week
- 1 hour LA meeting/week
- 2 hours office hours/week
- 2 hours mentoring/week

### How hiring decisions are made:

We look for students who have demonstrated their understanding of the course material, and who also are active members in their assigned teams. Special consideration is given to students who have taken the LB 155 course. Candidates are expected to have taken one of each set of courses:

- LB 155 and LB 171 or CHM 141
- LB 171/171L, LB 172/172L or their equivalents



## Courses: LB171 & LB172 General Chemistry I & II Lecture

### Job Description:

The chem lecture ULA responsibilities are as follows:

- Support a lecture section 2-3 times a week
- Run 2-3 recitation sections each week.
- Attend a 1-hour weekly LA meeting with the profs
- Hold 1-3 office hours each week
- Help grade the quizzes/exams

This is 8-12 hours of ULA work each week, depending on if it's a week with or without quiz grading. Unlike lab ULA work, we cannot offer half-time ULA work on the chem recitation/lecture team. While we technically hire one semester at a time, there is a highly valued pattern of fall chem lecture/recitation ULAs remaining on the chem lecture/recitation team in the spring.

### How hiring decisions are made:

Gen chem lecture ULAs are usually former gen chem lab ULAs. We look for lab ULAs who are interested in being a lecture LA, available at the times we need, and we think would be particularly effective in supporting students' problem-solving work.

## Courses: LB171L & LB172L General Chemistry I & II Lab

### Job Description:

Folks are hired for either 5 hrs/week or 10 hrs/week. Here is an example of tasks and time

Half-time chem lab LAs (5h/week)	Full-time chem lab LAs (10h/week)
1x 3-hour lab each week	2x 3-hour lab each week
1x 1-hour LA meeting each week	1x 1-hour LA meeting each week
1x 1-hour office hour *every other* week On an off week, this hour is used for prep and/or "banked" for giving feedback on student work	1x 1-hour office hour *every* week 2 hours used for prep and/or banked for giving feedback on student work.



You could also get involved in prepping the chemicals and consumables for lab each week. This is called “lab prep.”

After folks are offered chem lab spots, one of the chem lab faculty sends out an availability survey to the hired folks 1-2 months before each semester to figure out their availability for each lab session and interest in prep work.

### How hiring decisions are made:

We look for chemistry lab ULAs who are interested in being a chem lab LA, have completed relevant coursework (i.e. LB171, LB172, LB171L, and LB172L, and who demonstrate the ability to be particularly effective in supporting collaborative laboratory work.

## Course: LB271 Organic Chemistry I Lecture

### Job Description:

The Organic Chemistry Lecture ULA responsibilities are as follows:

- Support a lecture section 2-3 times a week
- Run 2 recitation sections each week.
- Attend a weekly LA meeting with the prof(s)
- Hold 1 office hour each week
- Help grade the quizzes/exams

This is 6-10 hours of ULA work each week, depending on weekly quiz grading or if there is exam grading. Unlike lab ULA work, we cannot offer half-time ULA work on the chem recitation/lecture team. While we technically hire one semester at a time, there is a highly valued pattern of the fall chem lecture/recitation ULAs remaining on the chem lecture/recitation team in the spring.

### How hiring decisions are made:

We look for organic chemistry ULAs who are interested in being a lecture LA, available at the times we need, have completed relevant coursework (i.e. organic chemistry I and II), and who we think would be particularly effective in supporting students’ problem-solving work



# Physics

## LB273 Physics I

### Job Description:

The typical physics ULA responsibilities are as follows:

- Support a synchronous studio section of introductory physics for 4-6 hours each week (this may be across multiple sections or multiple days within a single section). During class, ULAs mediate small- and large-group discussions and support empirical investigations.
- Attend a weekly synchronous 1.5-hour prep meeting with the instructional team
- Hold 1 help room hour each week
- Support the asynchronous grading of weekly homework activities each week (~1 hour per week)

This is 8-10 hours of ULA work each week, depending on grading assignments for the week. While we technically hire one semester at a time, there is a highly valued pattern of the fall physics studio ULAs remaining on the physics ULA team in the spring.

### How hiring decisions are made:

We look for studio physics ULAs who will be active participants in the instructional team, have completed relevant coursework (i.e. both semesters of introductory physics), and who we think would be particularly effective in supporting students in problem-solving and conceptual group work. We give preference to ULA applicants who are interested in working 8-10 hours per week and working both fall and spring semesters. We also seek to hire ULAs who are interested in becoming teachers or are pursuing a physics major. Since a significant part of the job requires attending class sessions synchronously, we also must consider student availability during the hiring process.