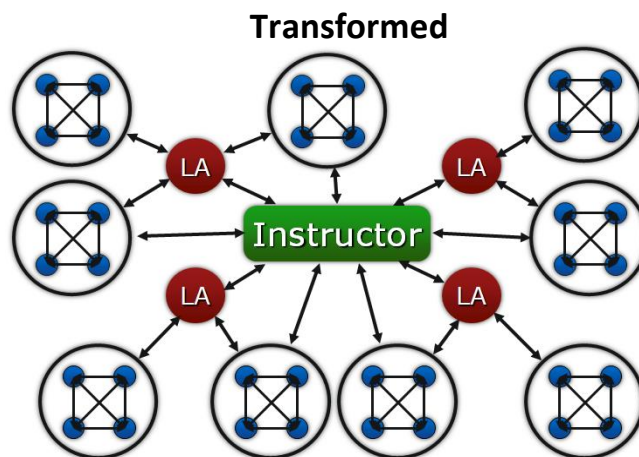
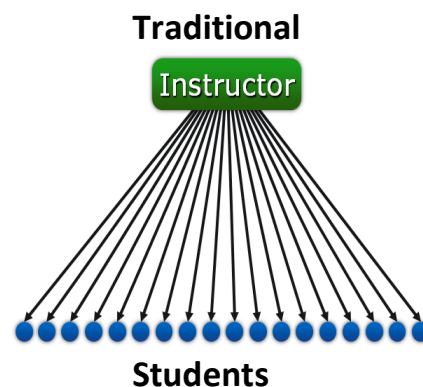


What is the Learning Assistant (LA) Program?

- **Started at University of Colorado**
 - 113 programs at 529 institutions as of 2020

- **Pillars of the LA Program**

- *Course redesign*
 - Active learning/group work vs. standard lecture
 - Foster critical thinking skills
- *Pedagogy course*
 - Weekly: Skills for questioning & listening, eliciting student ideas, reflecting, etc.
- *Preparation meetings with instructor*
 - Weekly: Discuss exchange of information for coming week and how students are interacting with the course
- *LA's develop relationship with students and act as advocate*
 - Students more comfortable speaking to a peer than instructor
 - Enhanced student engagement



How Does the LA Program Work?

Here is the basic structure of an IN PERSON LA class – you will need to print out the corresponding worksheet(s) and preworksheet(s) and take them to class with you:

- Lecture 50-60 mins
- Group work for the remaining 50-60 mins (hand out worksheet(s))
- Last 5 mins of class, hand out pre-worksheets (DO NOT DO THIS EARLY as they will stay to get the pre-worksheet)

For further explanations, see below.

How Do I Split the Groups?

During the first class, break the students into groups of 4. The best way is to have them count (1, 2, 3, etc...) to the number of groups. Then the 1's go together, 2's, and so on. **DO NOT let them choose their own groups as they will sit with their friends.**

Pre-worksheets

The pre-worksheet helps with pre-requisite information, new information, and serves to prevent students from leaving class early—since we do not give them out until the END of class. Students DO NOT turn these in. Instead, they must take the pre-worksheet quiz that contains problems taken DIRECTLY from the pre-worksheet (so they should do the pre-worksheet BEFORE attempting the quiz). Students have 2 attempts, 15 minutes each to complete the quiz – the highest score is kept. Solutions for the pre-worksheets will be available in canvas and usually open on Sunday mornings after the due date.

Worksheets/Homework

Homework is assigned at the bottom of each worksheet. The worksheet COMBINED with the homework for that section make up **one grade** for that section. A grader will be assigned by the MLC to each LA section for a certain number of hours weekly. Homework is due at the BEGINNING of class and must be submitted online via Canvas—the goal is that something is turned in and assigned EACH class—this keeps them engaged in doing calculus all week long. Further, homework should be graded by GTA graders no later than the class after which it was collected. Students then have 1 week to see the LAs for corrections and the chance to raise their grade by 20%. It is important that homework is graded as described by the GTA grader so that students are correcting their misconceptions in a timely manner. Sometimes the GTA



grader may need a small extension on completing the grading... this is acceptable and up to you. If you find things are NOT being done in a timely fashion and the GTA grader is not communicating with you, please reach out to me asap.

Grading

Graders will only grade “selected” problems from each WS/HW (they are given a list and the students do not know which ones will be graded). There is a standard -20 if ALL ungraded problems are not attempted (regardless if one or all are missing)—if all ungraded problems are completed, they start with these 20 points. The remaining 80 points are divided up between the “selected for grading” problems and credit lost comes from these 80 points.

Corrections at the MLC

To get 20 points back on their HW by going to the LAs, students will have 1 week from the time they get their WS/HW back to visit LA office hours at the MLC (in person classes) or virtually (online classes). Students must explain everything they missed on the graded problems AND any ungraded problems they did not do (they must show/explain them to the LAs to get the points back). Once they complete this, their HW grade is raised 20 points by the LA in Canvas and a note is included by the LA about the grade change.

Example of Class Structure

You will need to make copies of the worksheet(s)/pre-worksheet(s) and take them to class.

Here is an example of how my T/R class works: HW from the previous class is due and uploaded by students to Canvas by the START of class Tuesday. I lecture on 5.1 and 5.2 in @50-60 mins. Students are given two worksheets, one for 5.1 and one for 5.2 (both have HW assigned at the bottom). They work on these in their groups while the LAs and instructor move around the room to help them. Whatever is not completed on the worksheet in class, they complete on their own and upload to Canvas by the start of Thursday’s class—the HW problems from the book and worksheet are to be scanned as ONE assignment. With 5 mins left in class, I give them the pre-worksheet for 5.3, which is what the lecture on Thursday will be about. Do not give the pre-worksheet early as they will stay to get it.

Weekly Content Meeting

All instructors and LAs have a Prep Meeting weekly for one hour. During this meeting,

- Ask the LAs how students are doing and if there is anything you should be aware of (LAs are great student advocates as students generally feel more comfortable talking to their peers than their instructors)



- Have the LAs work through the worksheets for the coming week together. Listen to them... ask them questions like “What questions could you ask students about that to help their thought process or check their understanding?” and “Where do you think students will struggle and how can we question them through it?”
- Generally, we try to schedule multiple instructors so they can also discuss any issues they are having with each other.
- LAs are trained by me during weekly pedagogy class BUT it is also important that the instructors take a role in mentoring them as well!

Pedagogy Training

All new LAs attend one hour a week pedagogy training given by me and including weekly reading and teaching reflections. LAs learn about the following topics

- Discussion techniques and growth mindset
- Questioning strategies and Bloom’s taxonomy
- Mental models
- Facilitating effective group work
- Communication and active listening techniques
- Social justice and inclusivity



What do students think about the LA program?

Question 3: How would you rate your overall satisfaction with the LA Program in Calculus 1?

(1=poor, 5=excellent)

Rating	1	2	3	4	5
Number of Responses	1	1	6	60	127
Percentage of Responses	.5%	.5%	3.1%	30.8%	65.1%

Question 3: How would you rate your overall satisfaction with the LA Program in Calculus 2?

(1=poor, 5=excellent)

Rating	1	2	3	4	5
Number of Responses	1	1	5	44	114
Percentage of Responses	.7%	.7%	3.3%	26.7%	69.1%

Question 4: If you had a choice between and LA section and a Non-LA section of Calculus 1, which would you choose?

Choice	LA section	Non-LA section
Number of Responses	188	7
Percentage of Responses	96.4%	3.6%

Question 4: If you had a choice between and LA section and a Non-LA section of Calculus 2, which would you choose?

Choice	LA section	Non-LA section
Number of Responses	159	6
Percentage of Responses	96.4%	3.6%

