Math & Stats Lab Guidelines for TAs

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This guideline is for graduate students having *Math Lab* or *Stats Lab* TA assignments.

Introduction

The Math & Stats Lab is a free, walk-in, and in-person service provided by the Department of Mathematics and Statistics to all first and second year students.

For Winter 2023, the Lab is coordinated by

- Kelvin Chan (`ktychan@yorku.ca`), and
- Richard Le (`ler3@yorku.ca`).

Please contact us should you have any questions or concerns. During the opening hours of the Lab, typically, at least one of the coordinates is on campus.

Location and Hours

The Lab is located in *Ross S525*. For Winter 2023, the Lab opens Monday to Friday from 10:30 am to 4:30 pm, starting Monday, January 16, 2023. The Lab is closed during reading week (Febuary 20 to 24), Good Friday (April 7) and winter study day (April 11).

Responsibilities and Expectations

As a Lab tutor, you are responsible for

- providing one-on-one or sometimes one-to-many tutoring service, and
- helping students on any topic in first or second-year courses.

You are expected to

- actively help students,
- arrive on time and stay for the entire duration of your shifts, and
- sign in at the start of your shifts.

Last but not least, please DO NOT solve for-credit exercises. It might be hard to detect what is for-credit. Use your best judgements.

Schedules

There are two schedules, one for the regular period and one for the exam period. You should have already received the one for the regular period. The one for the exam period is available once the University announces the exam schedule. That also means some of your Lab hours are reserved for the exam period.

If you were to reschedule your shifts, you have a few choices.

- For one-off changes, feel free to find someone to cover your shift. In this case, please let the coordinators know after you have made the arragements. It also becomes your responsibility to "payback" your shift.
- If you can't find someone to cover for you, please get in touch with coordinators.
- For other types of rescheduling, please get in touch with the coordinators. Please note a dramatic change to your schedule might not always be possible since sometimes you might be the only one working in the Lab.

If you were to miss a shift in case of an emergency, please notify the coordinators at your earliest convenience, especially when you are the only one working in the Lab. In such cases, the coordinators typically reschedule your shift to another time.

Signning in

At the beginning of *each* of your shifts, please *sign in* using the computer in the Lab. Fill out the form displayed on the computer. There is *no need* to sign out.

TODO: Add a picture of the sign-in computer.

Working in the Lab

You can make a difference in someone's journey of undergraduate studies. Students often have limited "facetime" with instructors and TAs. The Lab is one of the few places where they can get quality help from an experienced mathematician or statistician. From experience, they often appreciate and benefit significantly from someone willing to help. As a result, many graduate students who worked in the Lab found the experience gratifying.

So first of all, please be active and welcome students into the Lab.

As a graduate student, you will soon become an expert in your area. You will have to explain what feels like second nature to non-experts. In the Lab, you are the expert, and students are the non-experts. While you are helping students, they also allow you to develop a communication style that suits your personality.

Here are a few tips to help you succeed as a tutor in the Lab.

- Proactively approach students as they enter the Lab. Some students can be shy and might need some encouragement.
- Introduce yourself, and ask for students' names. It helps connect with students and makes them feel welcomed and comfortable.
- Be encouraging and patient with students. Remember, first- and second-year students are still novice learners.
- Learning takes time. Giving students time to think and absorb is a safe way to build trust and confidence.
- Most students prefer concrete examples over abstract descriptions. Feel free to use the blackboards to your advantage.
- Decline to solve for-credit questions. Here are some ideas to still be helpful in this situation:
  - Try to work through a similar problem.
  - Try to ask guiding questions to the best of your judgements.
  - Offer to explain relevant concepts and techniques.
- It is okay not to know everything. In such cases, you can offer to review relevant materials with students to refresh your memory. You can also ask another tutor for help.
- If a student exhibits disruptive or inappropriate behaviour, you have the right to refuse help. Contact 911 in case of emergency. Contact the coordinators immediately.