The concept of engaged learning (from Mulder, 2013)

Notes for ERTH Teaching Assistants

* the diagram is from Mulder (2013)
THE TA COLLECTIVE
Most graduate students are teaching assistantships, and form a “collective” that is distinct from the remaining graduate student responsibilities and experiences.

The "collective" is very loose given that a teaching assistant (TA) from one course doesn't interact academically with the TA from another course, yet all experience the same general atmosphere: working on the front lines interacting with undergraduate students and faculty. Academic needs differ from course to course, but there are some fundamental requirements appropriate for all teaching assistants.

These are:

1) sound teaching practices:

2) intellectual investment:
   invest in the allotted 5 hours by doing your homework on the week’s subject material, and by providing sound and scientific responses to students' questions;

3) providing a response:
   attentive listener; and, provides equitable marking of assignments.

An appropriate understanding of a variety of academic needs and social/cultural backgrounds presented by undergraduates within a classroom environment is essential.

The TA can't operate in isolation, but should receive sound input from the course instructor with recommendations on how to conduct themselves in an academic environment and guidance in marking assignments.

GENERAL RESPONSIBILITIES
A “TA” is a paid position for graduate and some senior undergraduate students, provided by University funding to departments, to aid the delivery of courses. It is most often represented by student instruction in laboratory periods, marking of assignments, and posting grades. Responsibilities may be field-based teaching, discussion groups, online monitoring of discussion fora, and marking essays and tests/examinations.

TAs are paid for 130 hours of work per term, usually divided 2 x 65 hrs with responsibilities in two 0.5-credit courses. This translates into a working schedule of 10-hour weeks for 2 courses.

TAs are assigned their duties according to a “best fit” model; that is, where their expertise in earth sciences and teaching can be most effective. Once assigned, a working schedule is organized between the instructor of the course and TAs for the course. The TA’s responsibility within the course extends through the term and may include the period between end-of-classes and beginning of examinations during during which many end-of-term lab exams are held. At no time can your allotted work period extend beyond the 65 hours unless an agreement is made for additional work.
Whereas there is a responsibility from the instructor and department to ensure that the work contract is upheld, it is also the TA’s responsibility to provide 100% effort in teaching and work habits associated with the course. If not all of your time in a lab is being well utilized let the course instructor know about this so that your hours can be made use of more effectively.

There is an available paid (5 hrs) period for training available through EDC.

All TAs are required to complete an on-line health, safety and environment orientation training program (~1.5 hours) developed and offered by the Safety Office either as a stand-alone module or as part of a faculty’s TA training.

A TA must be aware of university policies and procedures related the following:

1. Academic integrity [https://carleton.ca/studentaffairs/academic-integrity/](https://carleton.ca/studentaffairs/academic-integrity/)

2. Confidentiality of student records

3. Human rights, tolerance, and academic accommodation

4. Proper behavior in the classroom:

**Ensuring student safety**

As an instructor, you must be aware at all times of potential danger for students. A First Aid kit is located in the Earth Sciences Main Office and first aid can be summoned from University Safety. Please note anything used from the first aid kit on the sheet inside, including band-aids, so that it can be replenished. After hours, call University Safety at 4444 from an office phone and 613-520-4444 from any other phone.

1. **Chemicals**
   Harsh chemicals are not normally used in teaching labs, other than dilute (10% vol) HCl. There should not be any adverse reaction to using this acid, however students should be advised to wash hands after handling acids and materials. Any chemical splash in the eye should immediately be treated at the eyewash station. Eyewash stations are located in rooms 2110 and 2130. TAs should familiarize themselves with the operation of these eyewash stations. Alert the Earth Sciences Main Office and/or University Safety if the eyewash station is used.

2. **Physical Presence in Labs**
   Students do move around a lab, but at no time should they be putting themselves or others at risk
by climbing/sitting on desks, or moving any large/heavy rock samples around the room (see also Student Behaviour below)

In the event of a fire alarm, clear the room and direct students to move out of the building through the main Herzberg entrance, then away from the building. Take the keys to the room with you and ensure the door is closed. Do not re-enter the building until you are advised that it is safe to do so.

**Student Behaviour**
Students need to be reminded that rocks, sediments, and minerals form the Department’s teaching archive, and are as valuable as journals and books in a library. The lab material must be treated with respect, and the equipment handled carefully. Most of the materials are irreplaceable: they have been acquired over time, sometimes at great field expense, often from remote locations, and carried long distances to give students the opportunity to see rocks normally only seen in the field. Equipment should be handled carefully so that it will be available for all lab sections.

Please note and report any issues with materials or equipment to the Earth Sciences Main Office or Beth Halfkenny, Curator of Collections.

**YOUR ROLE AS TA**
Here are some fundamental questions you should ask before the 1st lab session in order to fully define your role as TA:

1. **Who is your supervisor?** do you coordinate directly with a faculty member, a TA coordinator, or lab coordinator
2. **Who do you contact** if you are sick or anticipate missing a lab for academic/research reasons, who do you contact with that information?
3. **What is your role as a teaching assistant?**
4. **How much autonomy do you have relative to teaching methods, marking, etc.**
5. **How much help to students is too much?**
6. **Is there a rubric for marking assignments?**
7. **If you, as TA, monitor discussion groups, what are you supposed to look for? How do you evaluate these?**
8. **Are you responsible for leading a lab introduction and, if so, is material (e.g., PPT presentation or equivalent) for this available?**
OPERATIONAL ACTIVITIES FOR LABS

Course keys
TA’s will sign out course keys from the receptionist in the Earth Sciences’ Main Office. A key set has been prepared for each course, and will include a key to a TA cabinet or drawer, and if required for your course, a key for cabinets containing course specimens and a key to access microscopes.

You must return the key and sign it back in at the end of your lab section, so that TAs for other sections will be able to find it. For lab sections that run after hours (this includes evening labs, labs finishing at 5:30 pm) the key should be put into the drop box outside the main office. For 6:00 pm – 9:00 p.m. lab TA keys need to be signed out before the main office closes at 4:00 p.m.

TA Cabinets
A cabinet/drawer in each laboratory classroom is intended to be used by all TA’s for all courses in that room. It will house supplies, including remotes, laser pointers, manuals, white board markers and erasers, acid bottles and mineral ID tools, microscope tools, spare parts and manuals. The rest of the cabinet can be used for things such as lab answer keys, temporary trays for tests, quizzes and lab exams. Any trays that you use for your course should be labeled and materials returned to their original location when the course is finished.

Set up and return of materials
Each course has multiple lab sections and many labs will run immediately after another. Set up and take down time must be built into the 3 hours allotted. Ensure that microscopes are put away properly, other teaching materials are returned to their storage location, and the lab is ready for the next class. **TA’s will be required to ensure materials are ready to use at the beginning of term, and reorganized and returned to their original storage location at the end of term.** Time for this task should be built into your TA agreement with the Instructor.

Issues with rooms, materials, equipment
If something is missing, if HCl supplies are getting low, if you are looking for a specimen, if microscopes need adjustment etc., please see Beth Halfkenny, Curator of Collections in 2155 HP, or send an email to beth.mclartyhalfkenny@carleton.ca or contact the Office Staff.
DOS AND DON’TS OF BEING A TA

A) PROFESSIONAL BOUNDARIES

⇒ DON’T “friend” your students on any social media site

⇒ DON’T communicate with students by your personal email

⇒ DON’T provide any personal information (phone number, address)

⇒ DON’T provide students any advice on personal issues

⇒ DON’T make any comments about other students in the class or department

⇒ DON’T make negative comments about instructors (TAs, faculty)

⇒ DON’T play favourites or joke with students; such “friending” is unacceptable and will be viewed only negatively by other students

⇒ DON’T provide academic advice or support

✓ DO refer the student to the Undergraduate Advisor for academic issues

✓ DO refer the student to professional services provided by the University for personal issues.

✓ DO refer the student to the course professor for questions about academic deadlines, examinations, and other course matters for which you don’t have the answer: don’t make something up

✓ DO remind the students of deadlines related to laboratory instruction

✓ DO offer your positive experiences in earth sciences (field, lab, office work)

✓ DO discuss earth sciences within your professional experience capacity to encourage students to think about how their learning fits into a bigger picture
B) COMMUNICATING WITH STUDENTS
Learn students’ first names, and use these in conversation with them.

Send email ONLY to their carleton.ca account; this is stipulated university policy.

In the lab, be very clear in your instruction and expectations. Make sure that the same message goes to each student, and don’t change the information provided. It is best to address the entire class rather than to individual or small student groups.

Don’t change deadlines: students must present an accepted medical document for an absence arising from any stated illness, and late assignments are subject to academic penalties. Don't make special arrangements with students to get into the lab.

Often a TA will be expected to establish office hours so that students can ask questions. This may be in the lab itself outside of the lab hours.

C) MARKING ASSIGNMENTS
Follow answer keys provided by the instructor.

Be clear in explaining where marks are being deducted.

Make sure that an answer key is available to students (this may be posted in the lab, rather than online).

D) COMMUNICATING WITH INSTRUCTOR
Attend TA meetings with the instructor, understand the purpose of the course, and your teaching assignment(s). Make sure that the instructor has given very clear statements about your role and his/her expectations. Often, problems arise simply from poor communication.

E) TAKING RESPONSIBILITY WITH INTELLECTUAL INVESTMENT
A TA has the responsibility of being an instructor in a laboratory setting (if that is his/her role), even when the professor is present. Therefore, a TA must take possession of that responsibility and use it wisely. Learn the course material, how to present it to students, and be able to respond to their questions. Don’t ad lib!

As a TA, you represent an expert on the course material – after all, you are involved in the delivery of the course. Thus, students look to the TA for intellectual involvement in the material. If there is none, the students will become uninterested.
F) PROVIDING LAB INTRODUCTION
Many TAs are responsible for providing an introduction (5-10 minute) to the lab material. It is important to lay out the (a) purpose of the lab and knowledge gained from the lab assignment; and b) the methods being developed. Keep the presentation short and to the point.

It is not usually necessary to go through the entire lab, nor is it usually required to go over specific examples or remind students where to look for information. Students can read for themselves.

Students have their responsibilities too: reading the lab material prior to the lab, and, bringing all necessary items to the lab. It is not the TA’s responsibility to go and find extra pencils or assignment sheets for the student.

G) DEALING WITH ACADEMIC AND OTHER MISDIMEANORS
As an instructor, a TA is responsible to identify any academic misdemeanors; this includes inappropriate behavior in the classroom (verbal, physical, damaging material, etc), plagiarism, and cheating. There are university policies that deal with these and a TA should bring problems to the attention of the faculty member immediately. Serious altercations may require calling Security. In the case of physical or verbal abuse, a TA should leave the space immediately and call for assistance.

Support for TAs
http://www.carleton.ca/tasupport  more information for TAs
http://www.carleton.ca/safety  Safety (x-4444 for emergencies)
http://www.carleton.ca/equity  Equity Services
http://www.carleton.ca/health  Health and Counselling Services

THE TA MENTOR
The Department of Earth Sciences has a TA (Graduate Student) Mentor. This role is appointed in May of each year for the following academic year. Any TA can apply for the position. Funding is from the University. The role of the mentor is to provide guidance and direction to support services for the TA.

The TA mentor works with the departmental Grad Advisor to improve TA instruction in a classroom/field/lab setting. The mentor provides TAs with information (via workshops, online sources) through Carleton to improve their teaching capacity, management skills, and access to CuLearn, and provides to the Department through TA feedback information about what is not working or how to improve classroom instruction.