Fall 2011

TEACHING ASSISTANT TRAINING

Mechanical & Materials Engineering
Agenda – Day 1

• Welcome
• Policies
  - Senate Policy
  - TA Assignments and contracts
  - Roles & Responsibilities
  - Feedback
  - Academic Integrity
  - TA Resources

• Different TA jobs
  - Tutorials
  - Marking
  - Labs
  - Projects

• Wrap-up
Agenda – Day 2

• Active Learning - Reverse Engineering Your TA Evaluation
Teaching Assistants Evaluation Form

Teaching Assistant: ______________________________  Date: ________________
Course: ________________________________________

PERFORMANCE SCALE:

<table>
<thead>
<tr>
<th>5 -------------------------</th>
<th>4 -------------------------</th>
<th>3 -------------------------</th>
<th>2 -------------------------</th>
<th>1 -------------------------</th>
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</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>Adequate</td>
<td>Needs Improvement</td>
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PERSONAL AND PROFESSIONAL

1. Showed initiative and enthusiasm.
2. Demonstrated dependability and punctuality.
3. Exhibited discretion and exercises sound professional judgment.
4. Treated all students fairly and with respect.

TEACHING SKILLS AND STRATEGIES

1. Stated the main expectations of the lab/tutorial clearly and concludes appropriately.
2. Built on student interests.
3. Gave clear directions and explanations.
4. Demonstrated sound knowledge of subject matter.
5. Spoke clearly and audibly.
6. Posed appropriate questions.
7. Responded to students questions appropriately.
8. Marked course work fairly and provided constructive comments.
9. Encouraged student participation and interaction.
10. Used teaching strategies that were varied, appropriate and engaging.

PLANNING AND PREPARING

1. Developed appropriate learning expectations.
2. Included motivational activities/examples.
3. Accommodated needs and abilities of students.
4. Was prepared and organized for the lab/tutorial.
5. Organized activities and procedures in a clear and developmental sequence.
6. Identified and prepared appropriate resources for learning.
7. Identified key questions to focus and maintain instructional flow.

CLASSROOM MANAGEMENT

1. Demonstrated a professional and friendly manner.
2. Established and maintained positive rapport with students.
3. Used consistent and positive management strategies.
4. Gained student attention at the beginning of a lesson.
5. Maintained student engagement by using instructional time effectively.

OVERALL, the TA was an effective teacher.

What did you like best about your TA’s approach to teaching?  Do you have specific suggestions for improvement?
TA EVALUATION

Your feedback will help your TAs improve. Thank you!

SCALE

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<th>3</th>
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<td>NO!</td>
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<td>yes &amp; no</td>
<td>Yes</td>
<td>YES!</td>
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Please read each of the following statements and respond using the scale above:

1. My TA helped students learn.
2. My TA is approachable; I felt comfortable asking questions.
3. My TA provides helpful feedback on students’ work.
4. My TA treats students fairly and with respect.
5. My TA is an effective communicator.
6. My TA seems well prepared.
7. My TA is responsible and seems to take teaching seriously.
8. Overall, my TA is an effective teacher.

Please provide comments:

9. What do you like best about your TA’s approach to teaching?

10. Do you have any specific suggestions for improvement?
Senate Policy

- TA training is not mandatory, but obviously highly recommended.
- TA training in MME paid for at the usual TA rate.
- TA training will include explaining MME practices regarding the TA assignment process, explaining the purpose of the Student Employment Contract and of the TA Collective Agreement, discussing the roles and responsibilities of TAs, and introducing TAs to other issues relevant to their particular duties, such as assessing students’ work, leading labs or discussions, and communicating effectively. Attention will also be given to increasing the sensitivity of TAs to issues associated with gender and race relations as well as accessibility and accommodation for disability in the classroom/lab at Queen’s.
TA Assignments

TA duties/assignments are based on:
- needs of the Department
- expertise and experience of individual students
- student preferences
- professor preferences

Individual graduate students may have different TA hours due to contractual arrangements and/or the needs of the Department.
TA Assignments

TA assignments are posted by the Department. Graduate students apply indicating personal preferences.

TA assignments are awarded based on criteria set out in the TA Collective Agreement.

Pay for TA jobs may be part of your funding package or in addition to that package.

TAs (and profs) sign a contract indicating most of the details related to their assignments.
# Teaching Assistant Form

**SECTION A** (For Departmental Use Only)

Name of Teaching Assistant: 
Preference Group: 
Department: 
Number and Title of Course: 
Employment Supervisor: 
Number of Allotted TA Hours and Remuneration: 
Approved by (Head or Delegate): 
Date Approved: 

**SECTION B**

<table>
<thead>
<tr>
<th>Teaching Assistant Activities</th>
<th>Checklist</th>
<th>Hours</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Contact with Employment Supervisor</td>
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<td>Meetings</td>
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<td>Other:</td>
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<tr>
<td>Approximate Hours</td>
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<td>Contact with Students</td>
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<tr>
<td>Supervising labs &amp; field trips</td>
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<tr>
<td>Leading tutorials &amp; seminars</td>
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<td>Lecturing</td>
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<tr>
<td>Classroom preparation, set-up</td>
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<tr>
<td>Office hours</td>
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<tr>
<td>Answering email/telephone inquiries</td>
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<td>Monitoring class websites or listservs</td>
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<td>Other:</td>
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<tr>
<td>Approximate Hours</td>
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</table>

Total number of approximate TA hours (page 1)
# Teaching Assistant Form (Page 2)

<table>
<thead>
<tr>
<th>Teaching Assistant Activities</th>
<th>Checklist</th>
<th>Hours</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Marking and Grading</td>
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<tr>
<td>Term tests &amp; quizzes</td>
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<td>Mid-term exams</td>
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<td>Written assignments</td>
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<td>Lab assignments</td>
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<tr>
<td>Final exams</td>
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<tr>
<td>Administrative functions (e.g., grade entry &amp; proctoring)</td>
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<tr>
<td>Other:</td>
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<tr>
<td>Approximate Hours</td>
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<tr>
<td>Other Duties</td>
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<tr>
<td>Attending lectures</td>
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<tr>
<td>Preparation time</td>
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<td>Employer required training</td>
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<tr>
<td>Assisting with audio-visual equipment</td>
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<tr>
<td>Practicing lab techniques</td>
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<tr>
<td>Maintaining laboratory safety</td>
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<tr>
<td>Post-lab clean up</td>
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<tr>
<td>Other:</td>
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<tr>
<td>Approximate Hours</td>
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</table>

The TA agrees that the TA activities and approximate hours indicated on this form are subject to change by the Employment Supervisor. The TA and Employment Supervisor agree that any change to the total number of TA hours should be made in accordance with Article 16.07 (g) “Hours of Work” of the Collective Agreement. The TA and Employment Supervisor acknowledge that any potential conflicts (as defined in Article 12.03 “Appointments” of the Collective Agreement) regarding the TA and this appointment have been discussed.

Employment Supervisor (Signature)       TA (Signature)

Date                                    Date

Note to TA: As a Teaching Assistant you are represented by the Public Service Alliance of Canada, Local 901. Your terms and conditions of employment and bargaining rights are set out in the Collective Agreement which can be found at: www.hr.pscac.ca/agreements/agreements.php and www.psc901.org.

A TA may exercise reasonable intellectual discretion in relation to the course objectives and content, and in accordance with guidelines set out by the Employment Supervisor, without reprisal or discipline.

Copy: TA, Employment Supervisor, Personnel File, FSAC Local 901
Roles and Responsibilities of Graduate Students

- Student – learning how to tutor/teach
- Teacher – teaching/tutoring
- Assistant – helping the course instructor
- Employee – under contract with Department
- Professional – setting an example
- Advisor – help students with scholastic, professional and personal issues
Roles of TAs

- Subject expert
- Facilitator of learning
- Role model
- Advisor for UG students
- Assistant to a Professor
- Representative of the Department
- Employee of the University
- Liaison between UG students & Professor
TA Rights

- Informed of workload
- Signed employment contract
- Expect compliance with contract
- Access to fair dispute resolution
- Compensated for work
- Ability to request leave
- Positive environment
- Informed of their rights
TA Responsibilities

• Uphold professional standards of the Engineering Profession
• Uphold general academic standards of the University
• Follow Departmental policies
• Provide the UG students with assistance as defined by the course supervisor
• Be professional
• Communicate with Course Supervisor!
TA Hours

- Standard 60 hours/term contract (typically)
- Average weekly workload is 5 hours
- Workload may vary week to week
  - Discuss this with the course supervisor
- Keep track of your own hours
  - Formal time sheets will not be used for recording the hours you spend doing your TA job.
  - If your hours are higher or lower than expected for any two week period - talk to your course instructor, Gabrielle Whan, Gayle Laporte, or Chris Mechefske
Academic Integrity (Dishonesty)

- Advise students what constitutes Academic Integrity – not cheating
- If you see signs of a lack of Academic Integrity notify the course instructor
- Need to be aware it may happen
- Front line on assignments & tests, etc
- Senate Policy http://www.queensu.ca/secretariat/senate/policies/AcadInteg.html
- Faculty Policy http://appsci.queensu.ca/policy/honesty.php
RESOURCES FOR TAs

• Centre for Teaching and Learning
  Andy Leger, Coordinator for TA Development
  Several programs:
    – Workshops for TAs
    – TA manual
    – Consultations

• Experienced TAs

• Student Feedback Forms
• SGS 802: English Language Communication Skills for Teaching Purposes
• SGS 901: Teaching and Learning in Higher Education
• Workshop Series for Teaching Assistants
• Certificate Program in University Teaching and Learning for Teaching Assistants (PUTL)
• Consultations
• TA Evaluations
Programs and Services
Workshops and Ongoing Programs

www.queensu.ca/ctl/programs/programsworkshops/index.php
A 68-page guide to the skills of becoming an effective TA. Sections include roles and responsibilities of the teaching assistant, getting started (including surviving the first day of class), leading seminars and tutorials, lab teaching, lecturing and presenting, advising and counselling students, and tips on setting and marking assignments, tests and exams. The guide ends with hints on dealing with problems and suggestions for assessing your own performance as a TA.

http://www.queensu.ca/ctl/resources/publications/handbook_tas.html
Types of TA Positions

• Tutorial
  – Give presentations to class during tutorials
  – Ability to answer questions in subject are

• Marking
  – Assignments, lab reports, quizzes, exams, project reports

• Lab
  – Run laboratory session, smaller groups
  – Safety in sessions

• Project
  – Small group interaction
  – Open ended questions

• Combination of any of the above
TA Situations

- Dealing with Students
- Tutorials
- Labs
- Marking
- Other
What if you’ve explained something and a student still doesn’t understand you?

- Be patient, and remain positive.
- Use a variety of examples and analogies to explain an abstract concept.
- Vary your word choice – be mindful of language barrier.
- Use diagrams to help explain.
- If all else fails, keep the class moving and meet with the student(s) after class.
How do you remain inspired in the face of uncooperative, bored students?

• Some students ARE listening.
• The middle of the class is benefiting the most from your help.
• Make sure that uncooperative students do not affect the learning environment.
• Try to make your tutorial/lab more interesting and interactive.
• Ask questions of specific students.
Giving too many marks

- Be honest with the course instructor if you make a marking mistake.
- Talk to the instructor to come up with a fair plan of action.
What if you give out too many marks by mistake.

- Bring this to the attention of the course instructor ASAP.
- In consultation with the course instructor come up with a plan of action that is fair to all.
How do you deal with a student who is angry and wants more marks?

- Remember that marks are important to students! Be respectful.
- Your priority is to remain fair to all students.
- Refer to your marking scheme and be clear about where and why they lost/got marks.
- If you are feeling pressured, ask for more time.
- Report any abuse to the professor.
How do you deal with students that demand more of your time than you have available?

- You must budget your time allocated for helping students outside of class.
- Set reasonable office hours.
- Don’t do the student’s assignments for them!
- Share the load with other TAs.
- Refer the student to other resources. (e.g. textbook, tutor).
- You can’t be a tutor for the class you TA!
TA Situations

- Dealing with Students
- **Tutorials**
- Labs
- Marking
- Other
What do you do for the first tutorial/lab/presentation?

• Introduction
• E-mail
• Structure of tutorials – what is expected
• Assigned problems
Tutorials – Assignment Problems

- Obtain and review answers
- Make sure answers are correct
- Determine level of assistance
- Be aware of multiple methods
Tutorials – Lecture Style

• Preparation
  – Talk with prof for material to cover
  – Review textbook/problems and make notes
  – Rehearse while reviewing notes

• Presentation
  – Refresh concepts learned
  – Write down important eq’s on sideboard beforehand
  – Do problems – ask questions
  – Too fast/slow?
    • Get a feel for class comfort with material
How do you get students to be quiet at the beginning of a class or tutorial?

Treat students with respect and you should be able to then command respect from them.
How do you make all students feel welcome in the class/tutorial?

• Treat all students the same
• Listen attentively to their problems and do best to help them out
• Do not trivialize questions
How do I deal with repeated questions?

• Determine if entire group is struggling with concept
• Slow down pace and ensure most understand
• Tell the students who are unsure to come and talk at the end of tutorial
TA Situations

- Dealing with Students
- Tutorials
- Labs
- Marking
- Other
What do you do to prepare for your first lab?

- Get appropriate training.
- Do the experiment yourself!!
- Complete all of the calculations.
- Report any equipment that must be replaced/repai red.
- Prepare an introduction.
- Have a plan for logistics. (e.g. handling multiple groups).
- Have an accident plan.
How do you keep things interesting?

• You may do the same lab up to 10 times.
• Strive for continual improvement.
• Make the labs as interactive as possible (the students are different every lab).
• Keep busy!
How do you get students engaged?

• Don’t let the students blindly record measurements.
• Let the students determine what to measure.
• Balance what you tell students with what they can/should discover on their own.
• Emphasize the physical process behind the measurement.
• Ask the students questions about how the measurements are made.
• Direct questions to specific group members.
• All this requires that you understand the lab yourself – completely.
How do you deal with disruptive students?

- You are responsible for providing a safe and productive environment.
- Keep students motivated and busy!
- Watch out for “untimely” scheduled labs.
- Call campus security if you need help.
- Mention situation to course instructor.
How do you get familiar with lab equipment you have never used?

- Read the lab manual!
- Talk to the course supervisor or previous TAs.
- Make sure you are briefed on safety issues.
- Do not work alone.
- Find out how the equipment works, not just how to use it.
- Think about why the experiment is set up the way it is.
What do you do if students lose their raw data or get wrong data?

• Take attendance to verify students have been to the lab.
• Make sure the students have contact info for their group members.
• Make sure the students have recorded all the data they need before they leave.
• If students have to use another group’s data, they should state it in their report.
How do you mark lab reports?

• You may have to mark as many as 60 lab reports!
• Lab marking is generally subjective.
• Your grades should encourage improvement.
• Watch out for academic dishonesty.
• Get the students to answer specific questions.
• Develop and use a clear marking scheme.
TA Situations

- Dealing with Students
- Tutorials
- Labs
- Marking
- Other
How do I create a marking sheet, and how should I break down the marks?

• Talk to the prof
  – What are the main goals & take-home lessons?
  – Relative importance of content, detail, specifics & overall knowledge
  – How important is formatting, spelling, grammar?
  – Policy for late submissions

• Aim for consistency

• Transparency to students – marks should make sense

• More major assignments can merit rubrics

• There is such a thing as too much detail

• More objective vs. more subjective
How do I ensure that I am marking fairly?

• If theory based, mark one question at a time on all assignments before proceeding
  – Then check a few at the end to ensure fairness vs. time
• Hide the students names if you know any of them
• When there is more than one marker, get together after 3-4 each to compare and ensure a standard benchmark
• Try to imagine how difficult the assignment is for them
• Calculate a class average as a reality check, but try not to aim for a specific class average
How do I deal with a lack of academic integrity (academic dishonesty – cheating)?

• This is the professor’s responsibility
  – All actions taken must be led or directed by him/her

• Bring questionable assignments to the prof’s attention

• Some things to watch for:
  – Similar wrong answers / wrong assumptions
  – People from the same lab group
  – Material that was included in past years but not this year
  – A change in font or formatting for a part of the lab or assignment
Tips for Marking in Groups

• Break up the marking as evenly as possible
  – Speak up if you are being taken advantage of

• If marking together in the same room…
  – Split up assignments by question/page and have an assembly line
  – Fair marking is improved by having each question marked by one person only
  – This can be more fun than marking alone

• If marking separately…
  – Discuss what is worth 60%, 80%, 100%
  – Mark 3 or 4 each, then trade & review to get a benchmark
TA Situations

- Dealing with Students
- Tutorials
- Labs
- Marking
- Other
1. How do you balance TA duties (workload) and research work?
Remember that you are being paid for a set number of hours – try not to go too far over (or under). You are also being paid relatively well – the expectation is that you bring some degree of knowledge/expertise so put that to use.

2. What are some tips we can use to make our classes more enjoyable?
What did you enjoy (not enjoy) when you were an undergrad?
Other

3. How do I deal with other TAs when they seem to be not carrying their fair load or are behaving in an inappropriate manner?
Discuss issue in a “reasonable” manner with each other.
Inform the course instructor if needed.

4. How do I deal with a professor that has unreasonable expectations?
Discuss issue in a “reasonable” manner with the prof. Inform the Graduate Coordinator or Dept. Head if needed.

5. Declare all conflicts of interest - examples.
Wrap-up

Any Questions???