Indian Institute of Technology Bombay

Teaching Assistant Handbook

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Teaching Assistantship at IIT Bombay

Welcome to Teaching Assistantship at IIT Bombay!

As a Teaching Assistant (TA), you are an integral part of the Institute ecosystem. You assist faculty with instructional and academic responsibilities for undergraduate and graduate level courses. But this is just one of the roles you play. In fact as a TA, you are wearing many hats!

You are a student pursuing your undergraduate program or graduate program or doctoral studies. As a TA, you are a teacher in the form of a facilitator of learning while conducting either tutorial classes or lab courses; or even sometimes both.

You wear an advisor's hat when you offer guidance to your juniors and undergrad students. On the top of all these hats, you also wear a hat of a professional, aiming to excel in your professional career.

All this sounds overwhelming? Well, a correct and disciplined approach will help you juggle between these roles smoothly. Let us see how…..

TAs in the academic environment:

Most students taking admission to Master's and Doctoral program at IITs are expected to take up teaching responsibilities barring few exceptions. Scholars are expected to earn their assistantships by putting in eight hours of work every week as suggested by the Department. IIT Bombay also encourages senior UG students to take up role of a TA to help instructors teaching 1'st year courses.

This responsibility will help you improve as well as diversify your skillsets. Developing the ability to analyse and evaluate is one of the crucial abilities required, not just for the research career in the Institute, but is also an important skill set required for further professional life. You should consider your TAship as an excellent opportunity to develop these abilities for enhancing your future career.

The following document will not only assist you in understanding your new responsibilities, but will also help you in deriving maximum professional benefits from your TAship!

Know your TA responsibilities

Your duties as a TA may be one or several of the following: conducting laboratory / tutorial sessions, preparing teaching materials, grading of assignments and final exams, invigilation/supervision of exams, running sophisticated equipment and assisting with other departmental academic activities.

Every hat that you wear as a TA gives you a different kind of responsibility.

- → As a senior undergraduate or graduate **student**, you are expected to focus on your coursework, research and associated projects along with your TA ship.
- → As a **teacher** you are expected to know the technical content of the course, deliver the course content through helping with problem solving/discussions during tutorial sessions or lab sessions and evaluate student performance.
- → As an **advisor** to students you serve as a bridge, facilitating and strengthening communication between students and faculty. You are expected to offer guidance to students on different academic issues.
- → As a **professional**, you are expected to update your knowledge base, enhance communication skills, manage student interactions and deal with difficult situations.

Below are some guidelines that will help you to manage all these roles efficiently.

Getting started

- Meet the course instructor and understand your responsibilities and expectations well in advance.
- Discuss general policies of the course and grading policies with the course instructor.
- Update yourself with the course outcomes and course content.
- Decide and check with the instructor if you need to attend the lectures of the course for which you are a tutor.
- Talk to previous TAs, and find out which students take this course and why.

Before the session

General guidelines

- Visit the room/ lab in which you will be conducting your session to familiarize yourself with the space.
- Remember, knowing the theoretical background and concepts involved related to the tutorial / experiment is a **MUST** for successful conduction of the session. This also helps in discussion and answering questions from students.
- It is always good to know beforehand what you will do and how you will do it. So, plan your session properly. That will increase your confidence and will give you a better control over the session conduction.
- Predict what kinds of questions students might ask so that you can better prepare.
- Ensure that the logistics formalities such as attendance, roll list are being taken care in advance.
- Approach fellow-TAs if you find any discrepancy or if you need help in solving the tutorial problems /conducting experiment/grading. If the issue is still not resolved, seek guidance from the course instructor.

Guidelines for lab session

- If you are conducting a lab session, please make a note of safety guidelines and emergency protocol.
- For the lab session, ensure that the equipment/ set up needed are in working condition.
- Perform and validate every lab experiment yourself before the course begins.
- Make sure that you carry out sample calculations using your data required for each experiment you are demonstrating before the lab course begins.
- Invest sufficient time in preparing yourself to justify results of the experiments obtained practically and also to correlate them with the theoretical results anticipated.
- If there are laboratory assistants available in the laboratory, introduce yourself to them and consult them in case of any necessity.

Guidelines for tutorial session

- For the tutorial session, plan how much time you will spend on each activity such as explanation, discussion and problem solving.
- For each tutorial session, work out the solutions for all the tutorial problems yourself before commencement of the session.
- Prepare tutorial problem sheet / lab instruction sheet well in advance in consultation with the course instructor. Once finalized, keep sufficient copies ready for distribution or make use of Learning Management System (Moodle) if required.

During the session

- Report for the session on time. Begin and end your sessions punctually.
- Introduce yourself in the first session. Tell students about your background.
- Give clear instructions to students about what they would be doing and what is expected as an outcome of the particular lab/ tutorial session.
- Explain how the particular tutorial/ lab connects to the undermined theory as being covered in the theory class.
- Look for and plan for opportunities wherein students will get meaningfully engaged in the discussion. One of the ways to do this could be by asking students to answer questions, or by having students spend 5 minutes working in pairs on a problem or responding to a prompt.
- Encourage questions from students. Treat your students' questions (and especially their mistakes) with respect.
- Demonstrate the experiment in the lab or solve some typical problems in the tutorial session with sufficient explanation. Remember, students should be assessed for their learning only after they have been given sufficient resources and opportunities to learn.
- Some of the ways of developing self-motivation among students could be by i) Making the purpose of the tutorial/ experiment very clear to students right in the beginning. ii) Giving students periodic feedback about how they are progressing in the task at hand. Try implementing them.
- If required, offer your support in the form of scaffolding while doing the required calculation or conducting lab experiment. However, remember - at the end of the session students should be making a progressive move towards doing their job independently.
- Respect a diverse range of learning velocity of students. If required pay special attention to slow-learners.
- In the lab sessions, discuss how to interpret results obtained. Stimulate discussion among students while drawing inferences from the lab results.
- Report to the course instructor if you find that a particular student is consistently underperforming.
- As per the pre-decided course policy, collect the reports / tutorial sheets for grading –soft copy or written report as per the instructions of course instructors.
- Maintain the fine balance between being friendly with students and being firm on your academic responsibilities.
- Be open to the feedback and comments from the students and faculty.
- Ensure that the logistics formalities such as attendance, roll list, contact details of students are maintained as required.

After the session

- Complete the evaluation work on time.
- As you expect your students to maintain academic integrity, be a role model for them.
- Remember, your TAship goes beyond lab/ tutorial hour! Continue to interact with students if they need to have any clarifications regarding any content covered during lab/ tutorial session.
- As per the policy decided by the course instructor collect feedback from students either periodically or at the end of the academic session.
- Be a Reflective TA! Reflect upon the feedback collected and try to act upon accordingly.

Guidelines for conducting exams

- Follow the instructions given by the course instructor for conduction of exams.
- Discuss beforehand with the course instructor what would be considered as unethical practices during exam conduction.
- Discuss with the course instructor and develop policies beforehand on the consequences if students are caught following unethical practices during an examination. As per the instructions received from the course instructor, make students aware of these consequences before exam starts.
- Do not have any bias for any student while conducting examination. Have a uniform policy for all the students.

Guidelines for grading

- Discuss with the course instructor and develop an assessment plan if you are grading an examination.
- Follow the grading scheme as decided earlier. Make use of a Rubric in consultation with the course instructor for having a consistent marking scheme for all students. Following a well-planned, systematic and consistent grading scheme will help you in handling the crib sessions confidently and justly.
- Make sure that you are not partial to some student/s while grading. Follow ethical practices. Do not allow your friendship, familiarity or other personal issues to affect your consistency in grading.

Follow these ethical practices! Respect Diversity of your students!

- Remember, honesty and integrity are essential qualities of an educational institution.
- Interactions with students should be professional, respectful and all criticism should be constructive.
- Acknowledge and respect diversity among your students.
- Be careful in your use of language. NEVER make denigrating remarks based on students' regional, linguistic, ethnic, gender identity.
- Do not ask students to do favours of any kind for you.
- Be extremely prudent in social relationships with students.
- Learn how to draw a line between your personal relations and professional commitments.

Some general tips!

- It is quite possible that no matter how much you prepare, there will be some questions that you will not be able to answer. It is OK. Not knowing an answer on the spot does not bring down your credentials. In fact, students will appreciate if you are open about it and if you ask for some time to answer the question.
- Do not try to be personal with the situation in case of any kind of misbehaviour. Handle the situation professionally. Send a strong signal that these kind of behaviours are not acceptable as a part of course policy.
- Focus on your professional development. Make use of professional development programs available in the campus for improving your competency in academic writing, language proficiency, research aptitude, presentation skills. Learn how to use productivity tools and technology for better time management.
- Remember that helping and mentoring juniors is an integral part of any professional activity and not just limited to academic institutions.

Hope you will enjoy your TA work, help your juniors to learn better, and, in the process, you will enrich your professional, social and mentoring skills!