Physics & Astronomy

Teaching Assistant
Professional Development Program

TAPD Facilitators (2012/2013)
Liam Huber, Jonathan Massey-Allard & Sandra Meyers
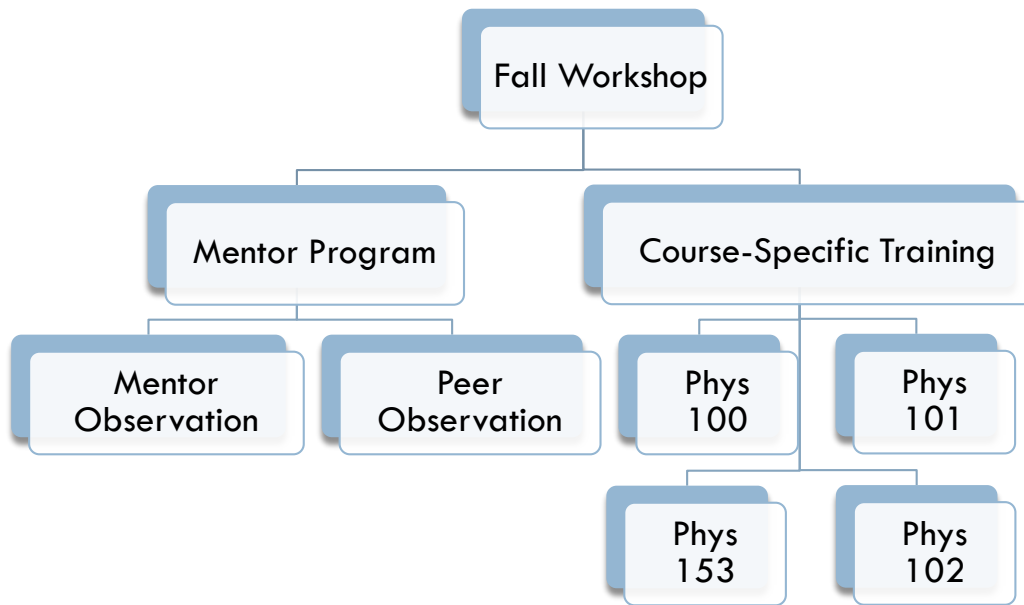phas_ta@phas.ubc.ca

All training information, including module slideshows can be found at:
www.phas.ubc.ca/~phys_ta

Program Overview

For New TAs

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                    Fall Workshop
                    /          \
          Mentor Program    Course-Specific Training
           /        \         /     \      /      \
      Mentor      Peer    Phys   Phys   Phys   Phys
   Observation  Observation 100   101    153    102
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For Senior TAs

Workshop Development	Peer Review Training
Culture & Diversity Training	Peer Mentoring
Formative Evaluation from Trainees	Peer Observation

Skills & Competencies for new TAs

Fall Workshop

- Socratic questioning
- Formative evaluation
- Learning goals
- Presentation practice
- Culture & diversity

Course-Specific Training

- Efficient marking
- Targeted teaching methods for particular labs/tutorials
- Ongoing support & follow-up

Mentor Program

- In-situ feedback
- Deliberate practice
- Reflection
- Ongoing support & follow-up

Skills & Competencies for senior TAs

Coordinators

- Fall workshop development & delivery
- Facilitation of all TAPD programs
- Funding & budget
- Peer mentoring
- Culture & diversity training
- Formative evaluations for program assessment

Head TAs

- Development & delivery of course-specific training
- Peer mentoring
- Course administration & development
- Culture & diversity training
- Formative evaluations to tailor training

Mentors

- Peer review training
- Mentoring & role model experience
- Observing other teaching styles
- Culture & diversity training
- Effective use of feedback from observations & discussions

Core Workshop

- Developed by graduates students for graduate students
- The workshop is a paid mandatory training for all new TAs
- All graduate courses are cancelled for the duration of the workshop to ensure participation

Practical teaching skills

Specific to physics

Hands-on practice

Applicable to labs & tutorials
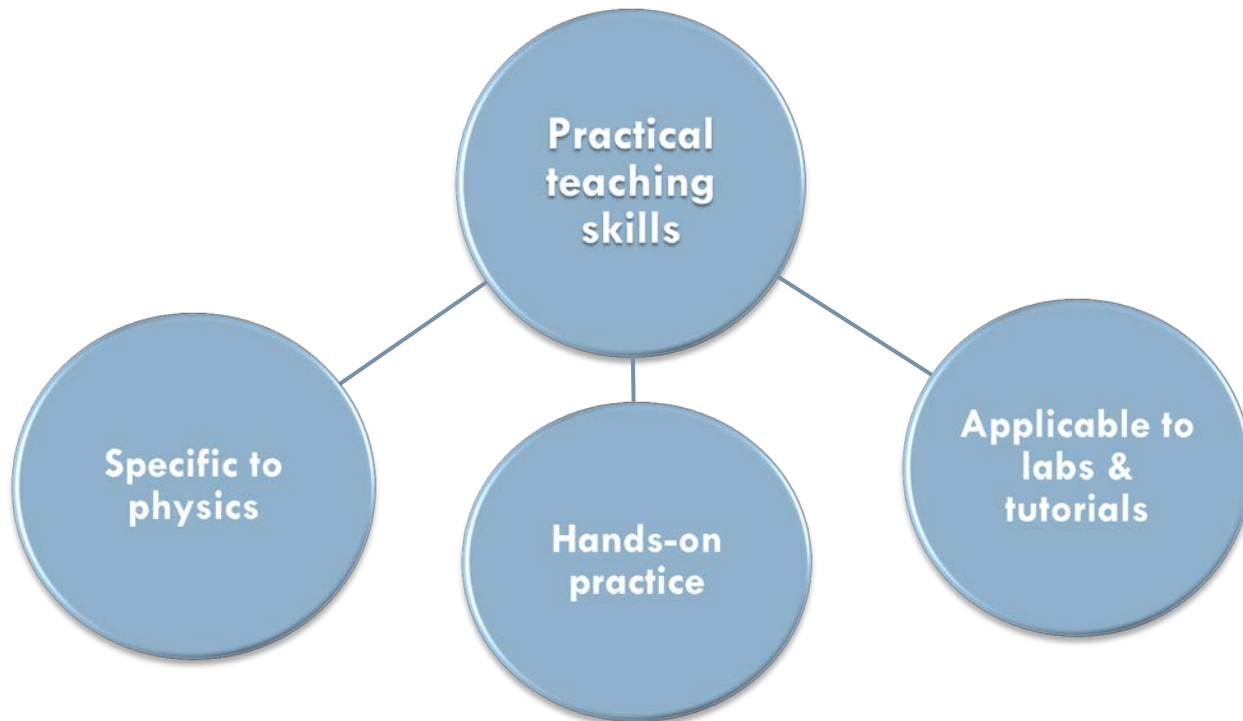
Core Workshop

Module 1

Introduction and Job Expectations

The professional aspect of a teaching assistantship is emphasized through presentations detailing departmental and union expectations of the TA role

- The Department Head presents an overview of the department's expectations of TAs, including:
  - Responsibilities inside and outside the classroom
  - Expected TA work hours and nominal duties

- Important job information from the TA union (CUPE 2278) is highlighted

Core Workshop

Module 2

From Learning to Teaching

TAs explore their own positive and negative learning experiences to determine the important aspects of teaching

- Effectively sets the stage for later modules by demonstrating the difference between learner-centred and teacher-centred learning
- Serves as an ice-breaker and sets a tone of open dialogue for the rest of the workshop

Core Workshop

Module 3

Teaching by Questioning

TAs watch and critique recordings of real TA-student interactions and imagine what they would do if they stepped in and took over

- Introduces the use of Socratic questioning techniques in the classroom
- Videos are from the University of Maryland PER group

Core Workshop

Module 4

Learning Goals in the Lab

TAs discuss learning goals and their role in the lab setting. They are given the opportunity to examine a sample lab from a first year physics course and develop a proper set of learning goals for it.

- ☐ Motivate the importance of learning goals in a lab or classroom setting for both *teaching* and *learning* purposes

- ☐ TAs learn how to make their learning goals specific, measurable and attainable.

Core Workshop

Course-Specific Training

TAs attend a training session specific to the course they will TA in the upcoming semester. The training is coordinated by the courses' Head-TA(s) and provides all the necessary tools and training TAs will need to comfortably lead their first lab or tutorial.

- Allows TAs to practice delivering a properly structured introduction to their peers
- Provides a platform for receiving and giving constructive feedback and evaluation
- Focuses on skills specific to courses, such as marking, working with large groups, and problem solving

Core Workshop

Module 6

Formative Evaluation

TAs learn effective techniques for obtaining constructive feedback from students

- Highlights the different roles of feedback in the classroom, such as

  - Improving one's performance as a TA
  - Assessing the students' understanding as new concepts are introduced

- Refers to techniques and questionnaires that TAs have already seen and participated in throughout the workshop

Core Workshop

Module 7

Creating Inclusive Classrooms

TAs explore the impact of their identity/culture on their teaching and learning experiences and discuss sensitive situations presented via several case-studies.

- Fosters an open and interactive environment ideal for discussion of complex gender and diversity issues

- Focuses on issues that could be encountered in a classroom, which are relevant to the TA positions

Note: TAs in leadership roles also receive formal training from the Center for Inter-Cultural Communication (CIC) so that diversity can be incorporated into all elements of the training program

Ongoing Course-Specific Training

Head TAs have the additional responsibilities to:

- **Run regular meetings** where upcoming tutorials and laboratories are discussed:
    - Emphasis of the meetings is on "**how** to teach" rather than "**what** to teach".
    - e.g. identify teaching strategies that will address common student misconceptions, misinterpretations of activities, etc.

- **Conduct optional workshops** later in the term to:
    - Help refine new TAs' teaching techniques
    - Address any issues that may have arisen since the Fall workshop

- Challenges:
    - Attendance and perceived value
    - Keeping focus on "how" vs. "what" to teach

Mentor TA program

Each new TA is paired with a single Mentor TA for the duration of the fall term, and participates in a series of peer-review sessions.

- All mentors participate in a peer review training session offered by the Center for Teaching Learning and Technology (CTLT)

- The program is facilitated by a Mentor Coordinator whose main responsibilities are to:
  - communicate with and support the mentors
  - coordinate the pairing of mentors with mentees
  - act as a liaison with the TA Training Facilitators

Mentor Program Overview

1- Introductory meeting

a) Teaching goals are discussed   b) Mentee skills to evaluate identified

2 - In-class observation

Mentor observes the mentee in the classroom

3 - Post-observation debrief

Pair discusses the mentor's observations

4 – Follow-up observation

a) Peer Review between mentees   b) Second mentor observations

5 - Follow-up discussion

Post observation discussion facilitated by the mentors

The TA Handbook

Newly created in 2012, the TA Handbook covers topics relevant to both new and experienced TAs:

- Job expectations, responsibilities and position details
- Important departmental and external contacts
- Tips and tricks to improve one's teaching, as well as links to additional resources and contacts
- Classroom problems and resolutions
- Culture and diversity; techniques to create an inclusive classroom environment
- Creating and using formative evaluations
- First day checklist

This book was distributed electronically to all TAs, or in paper format by request.