TA Development Goals for Fall 2019

Three general areas for TA development (during general grad school experience)

1. Classroom practices, e.g. managing groups, student interaction, presentation skills
2. Assessment practices, e.g. writing and grading quizzes/exams/homework
3. Tutoring practices, e.g. effective assistance in 1-1 settings such as mathskeller
4. Course design practices, e.g. writing a syllabus, creating an inclusive and equitable course environment

Training Goals for First-Year TAs

During the math department grad student orientation, new TAs will receive a 60-minute training about:
1. What is a recitation?
2. Types of math dept TA duties
3. Expectations for Mathskeller hour
4. Managing student questions:
    a. providing hints as opposed to providing solutions
    b. asking diagnostic questions, e.g. "Show me what you've tried"
5. Expectations for class preparation
    a. Work through all exercises/problems for the day prior to class
    b. Use notation consistent with online homework, recitation worksheets, and textbook
    c. Communicate with instructors regarding special instructions
6. Presentation skills (related to the students' microteach experiences):
    a. Clear writing, eye contact, loud voice

At the all-TA meeting on the course meeting day, the following topics will be discussed:
1. UK Policies and Resources
    a. FERPA, http://www.uky.edu/registrar/FERPA-privacy
    b. Academic Integrity, http://www.uky.edu/ombud/academic-integrity
    c. The Study, http://www.uky.edu/ugs/study
    d. The Mathskeller, https://math.as.uky.edu/mathskeller
2. Reporting/org chart for TAs. In case of problems or issues, report immediately to: supervising instructor, then course coordinator, then DUS or DSC, then Chair
3. What is the purpose/goals of recitations?
4. Expectations for Mathskeller hour

At course coordination meetings and throughout the semester, course coordinators will train TAs regarding:

1. Reporting/org chart for TAs. In case of problems or issues, report immediately to: supervising instructor, then course coordinator, then DUS or DSC, then Chair
2. Managing group work (recommended practices from senior TAs)
    a. Assign groups from day 1
    b. Recommended size groups (2, 3, or 4 per group)
    c. Assigning new groups every 1-2 weeks
    d. Using "team"-oriented language
    e. Techniques for facilitating conversation in groups, e.g. assigning "roles" to students, designating a scribe, having groups work at the board, etc.
3. Managing student behavior issues or suspected plagiarism:
    a. Immediately report problems to supervisors
    b. Laptop use: recommended to allow only one laptop per group, to allow students access to worksheets but avoid distraction
4. Expectations for class preparation
    a. Work through all exercises/problems for the day prior to class
    b. Use notation consistent with online homework, recitation worksheets, and textbook
    c. Communicate with instructors regarding special instructions
5. Effective communications practices, e.g. email management and webwork query policies
6. Having a syllabus, talking to experienced TAs for a sample syllabus

In MA 601, students will receive training regarding:
1. TA Observation Forms --- what the department looks for in an effective TA
2. Managing student questions:
    a. providing hints as opposed to providing solutions
    b. asking diagnostic questions, e.g. "Show me what you've tried"
    c. In multiple contexts, e.g. during recitation, during office hours, and during Mathskeller hour
3. Presentation skills (related to the students' microteach experiences):
    a. Clear writing, eye contact, loud voice
4. Managing students working in groups/teams
    a. Techniques for facilitating conversation in groups, e.g. each student in the group taking 30 seconds to share an idea, assigning "roles" to students, designating a scribe, having groups work at the board, etc.

5. Grading quizzes/homework/exams
   a. **This should be included prior to the first exam week.**
6. Selecting and/or creating problems for quizzes/homework/exams
7. Difference between formative and summative assessment
8. Creating equitable and inclusive class environments
9. Mathematical content knowledge for teaching
   a. Learn the distinction between understanding a math topic and understanding *how students learn* that same math topic.
   b. Consider examples from 100-level courses at UK
10. Use of LaTeX in the department
11. UK Policies and Resources
   a. FERPA, http://www.uky.edu/registrar/FERPA-privacy
   b. Academic Integrity, http://www.uky.edu/ombud/academic-integrity
   c. Academic Alert system, http://www.uky.edu/studentacademicsupport/ACT-faculty-and-staff
   d. Community of Concern, http://www.uky.edu/concern/
   e. The Departmental and University Ombud, http://www.uky.edu/ombud
   f. UK Code of Student Conduct, http://www.uky.edu/studentconduct/code-student-conduct
   g. Disability resource center, https://www.uky.edu/DisabilityResourceCenter/
   h. The Study, http://www.uky.edu/ugs/study
   i. The Mathskeller, https://math.as.uky.edu/mathskeller
12. Writing a syllabus
13. Preparing a Teaching Statement