“Tips” on teaching

(http://www.mathstat.uottawa.ca/Profs/Jessup/tips.pdf)

⋆ **Before the first class:**

- is there another section ? - coordinate
- who taught it before?
- read calendar description, old outlines, tests, assignments
- know your audience: programs (U of O home-services-infoweb-Applications for professors-classlist or Michelle L.)
- course web site (already exists for another section?)
- a detailed course outline:
  - text
  - approximate sections covered
  - evaluation scheme
  - test dates (avoid co-op interview period $\geq$2nd year)
  - location of Drop-In-Centres
  - course web site url

⋆ **The first class:**

- introduce yourself
- walk them through course outline
- suggest strategies for success (many won't have one): read ahead/attend lecture/re-read notes/suggested exercises/consult text (use index), notes, web page, D-I-C, your office hours.
- manage their expectations: amongst cream now; average may fall, but be upbeat: "normal" distributions are normal but not compulsory
- don't threaten - encourage
- treat them like adults (some adults are maniacs...)
- remind them (in a positive way) high school is over: they are more responsible for their success now
- you're helping provide an opportunity for them to learn: there are no guarantees for success
- "there are no stupid questions"
- questions (> 5 second delay)

⋆ **All classes:**

- start on time, end on time
- quickly recap last topic - outline today's topics
- don't expect all to be fascinated
- they won't be interested if you don't seem to be
- don't belittle or humiliate anyone - avoid sarcasm
- face them as often as possible: encourage questions
- wait for a response (>5 secs!)
- use the mic in a large classroom
- speak clearly: it's all new to them
- say the same thing 3 times in different ways
- don't hesitate to repeat defns or explanations later
- be encouraging without misleading them: questions/responses
- be prepared to admit an error -asap afterwards
- deal with noise: talk to them...
- noise at the end of class...
- say what will be covered next class - "read ahead!"
  (post it on the web as well)

⋆ **Classes before a test**

– give precise coverage of test, post it on the web

– remind them (weeks before...) of strategies for success

– suggested exercises, old tests...

– calculator policy

⋆ **Tests**

– Evaluation is necessary

– consistent with

  · what you said above

  · other sections of the same course/other language homologue.

⇒ discuss with colleagues !

– "difficult" exams are easy to set... "easy" exams are useless

– appropriate level: read, ask...

– no surprises, "interesting" questions (bonus)

– can copy question styles... get some old exams - students have them

– **always** write solutions, scheme **before** copying exams!

  · checks questions (correctness, level, difficulty for marker)

  · checks length: factor of > 2

– give reprography 48 hours!

⋆ Classes after a test

- let them know when they'll be marked
- try to give them back at the *end* of a class...
- talk about it next class
  - can be pleasant/unpleasant: some succeed and some don't.
- Evaluation affects
  - students' timely success, success at all!
  - scholarships, loans, awards
  - relationship of students with parents, etc.
  - atmosphere in classroom
- **Never be casual or sarcastic about it**
  - Students have the right to see any graded work upon request and can have it re-graded.
  - Students appreciate positive, constructive feedback.
  - encourage them without misleading them.
- ask marker to write a summary of main problems; look at some yourself
- invite them to see you in office hours with "problems"

⋆ You and your TA

- You:
  - determine the nature of the evaluation
  - determine standards for tests, assignments, reports
  - set tests, assignments, reports
  - determine grading schemes
  - determine all policies re: late assignments, reports, missed tests, etc.
  - have ultimate responsibility for all marks
  - administer the tests
  - mark the students' work (except for multiple choice...)
- The TA:
  - administers the tests
  - marks the students' work
  - enters grades, writes summaries of problems...

⋆ N.B.

- don't let TA's responsibilities 'evolve':
  - changes to duties have to be discussed and agreed within hours assigned
- watch for overwork/underwork
  - ask TA to keep account of hours so you both know...
- Establish a timetable with the TA.

e.g. MAT 1341:ESTIMATE OF DUTIES

(Estimated Enrolment: 150)

Hours	**Duty**
	Miscellaneous
5.5	Meetings with instructor: (i) 5 @ 1/5hr. before tests (ii) 9 @ 1/2 hr before problem sessions
0	Learning computer entry of grades
2	Editing final class list, misc. mark changes.
	Tutorials, etc
18	tutorial preparation: 9 @ approx. 2 hours
13.5	9 tutorials @ approx. 1.5 hours
12	Office hours 1 per week for 12 weeks.
	Grading
2	Reviewing solutions prior to grading: 4 @ 1/2 hr
1	1 diagnostic @ approx. .5 mins each for 150 students
40	2 mini-tests @ approx. 8 mins each for 150 students
23	1 mid-term @ approx. 9 mins each for 150 students
3	Writing summary of students' problems 12 @ 1/4hr
4	Entering grades on computer 4 @ 1 hr
0	Helping grade the final exam?
	Proctoring?
6	Proctoring 4 tests (12:55-2:25)
1	Arranging 4 tests by version and family name
132	TOTAL

– **Comments on Papers**
  - make them precise, useful
  - be as positive as you can
  - use "please see solutions/me" judiciously
  - avoid the use of exclamation marks in a negative sense (e.g. "×!!!", "NO!")
  - avoid sarcasm. It is never appreciated.
  - **Never write a gratuitous comment in frustration.** If you feel one coming on, take a break.

– Reviewing papers
  - don't make special exceptions you haven't made before
  - be prepared to admit an error

⋆ **Administering Tests/Labs**

– instructions for proctors - meet them before: you'll pay for a poorly run exam...
  - who is picking up the exams, exam booklets, scrap paper?
  - will the office be locked when you plan to go there?
  - arrive early (at least 10 minutes for a large class)
  - start/finish all students at the same time
  - be prepared for questions
  - tell proctors what they <u>can</u> answer (e.g. "what's a parallelepiped?")
  - move around the room quietly
  - be ready for the end of the test

⋆ Academic Fraud

- it happens...
- the vast majority of students don't cheat and do care when others do.
- read the relevant section in the faculty handbook.
- procedures: (tests)
  - give an individual warning, tell another TA, be sure.
  - keep relevant evidence, ask the student(s) to leave.
  - write an account of events asap.
  - be polite but firm at all times.
  - tell the prof, be prepared to recount to a committee of the faculty.

  (papers)
  - show the prof, ask for direction.
- sanctions:
  - F for the work/course
  - loss of all credits for the session
  - loss of all credits for the year
  - suspension from the program or faculty ($.5 \leq T \leq 3$)
  - expulsion from the Faculty
  - expulsion from the University ($T \geq 3$)
  - revocation of a degree