

Tools for Faculty from the 2004 ASEE Conference
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A Tools to help Faculty (*Plus what helps me*)

1) New and Transitioning Faculty.

Requirements and Interpersonal Relations [1]

- a. Define with your Department Chair and Dean, requirements for tenure/promotion, in writing.
- b. Develop 2 or 3 mentors and spend time with them.
- c. Remember quantifiable measures such as publications, grants, and books are looked at much heavier than teaching (even though that's why we want to be here in the first place).
- d. Stay positive and don't make enemies.
- e. Speak little and listen lots.

Research and Publications

- f. Do quality work, but don't be a perfectionist (see g), shoot for reasonable goals.
- g. Remember 80/20 Rule: The last 20% of a project / proposal / paper takes 80% of the time.
- h. Block out time for writing every week.
- i. Make use of the resources that you have on campus. (Internet, software, renowned researchers, library subscriptions, etc)
- j. Ask Anyway! If you need equipment, software, etc, get price quotes, write proposal for it, even if there is no current monies. You will be ready when there is, new faculty may have higher priority over older.

Stress Relief

- k. Take time for exercise. At least go walking 3 times a week.
- l. Say no to non-critical items.
- m. Stay positive... it's not perfect any place.
- n. Guard your time, but do those things most important to you!
- o. Balance your life, take a vacation once in a while, have personal time.
- p. You will get tenure!

2) Teaching Styles and Techniques

- a. Set rules in syllabus, go over them, stick to them.
- b. Be firm then give them a break once in a while. "Students don't care how much you know until they know how much you care"
- c. Are you excited about what you are teaching?
- d. It takes 3 times to get a course right. "3 times rule"
- e. Teach fundamentals but use technology (email, web page, projectors, software).
- f. Put as much as possible on web page (syllabus, lecture notes, reviews, sample exams) to save you time in the long run.
- g. Encourage students to come during office hours.
- h. Conduct your own satisfaction surveys.

3) Engineering Ethics and "Empathetic Engineering" [2,3]

- a. Exercise empathetic engineering – design good products.
- b. Ethics start with small things such as on your syllabus – set and maintain good standards on cheating, plagiarism, copying. You must follow and enforce your standards.
- c. Treat students and other faculty with respect.
- d. Engineering faculty should be good role models.
- e. Keep university politics out of the classroom.
- f. Hold mock public meetings.
- g. Use real ethics stories from practicing engineers

4) Student Grading and Student Evaluation of Faculty [4]

- a. SRI scores are not a function of student workload.
- b. SRI scores are a function of instructor performance.
- c. SRI scores are a function of average course grade but lessons with experience.

- d. High SRI scores result from good instruction and good students.

B Tools to prepare and help Students

- 1) Pre-K students and the Home Environment
 - a. Case study
 - b. A two-parent home gives the children a huge boost.
 - c. Read to children and encourage them to look at books
 - d. Good academic achievement doesn't have to be a function of income
 - e. Spend time with children
 - f. Children will watch and mimic parents
- 2) K-12th Grades
 - a. **Priority:** Parents must help and encourage children.
 - b. Develop self discipline in children
 - c. Encourage reading for fun.
 - d. Science Kits, encourage math and science classes.
 - e. Don't overload children.
 - f. Some children will change greatly between high school and college.
- 3) Freshmen & Undergraduates
 - a. We all work with them, what have you noticed?
 - b. Not all are ready for college. (full-time work, Peace Corps, religious volunteering will help students.)
 - c. Study habits from high school will continue, but can be improved.
 - d. Continually repeating classes doesn't help.
- 4) US Graduate Students
 - a. There are a lot of opportunities for funding.
 - b. Hard work is just as important as innate intelligence.
- 5) International Graduate Students
 - a. Cultural, health, religious, educational differences.
 - b. Concerns about finances may consume much time.
 - c. Work on writing skills early.
 - d. Dedicated workers.

Useful Web sites

1. ****[Iowa State New Faculty Tips](#)****
 2. [Univ of Washington Pre-Tenure Helps](#)
 3. [Faculty Teaching Tips – San Francisco State](#)
 4. [Tenure Track Lunches at American Univ.](#)
 5. [Common Sense Tips from an Ag Dean](#)
 6. [Penn State Promotion & Tenure Resources](#)
1. <http://www.provost.iastate.edu/faculty/NewFacultyTips.html>
 2. http://www.engr.washington.edu/advance/resources/Retention/pre_tenure.html
 3. <http://www.cet.sfsu.edu/index.cfm>
 4. <http://www.american.edu/cte/faculty/tenure.html>
 5. <http://ag.arizona.edu/dean/cwcommonsense.html>
 6. <http://www.science.psu.edu/newfacultyguide/promo.htm>

References

- [1] Lima, M., "Tips for Beginning Faculty in Engineering," ASEE 2004, Salt Lake City, UT, June 2004.
- [2] Flowers, W., "Empathetic Engineering," Main Plenary Speech, ASEE 2004, Salt Lake City, UT, June 2004.
- [3] Houghtalen, R.J., Rogers, G.M., "Don't Give Up 'Good Teaching Principles' To Teach Ethics," ASEE 2004, Salt Lake City, UT, June 2004.
- [4] Dee, K.C., "Reducing the Workload in Your Class Won't 'Buy' You Better Teaching Evaluation Scores: Re-Refutation of a Persistent Myth," ASEE 2004, Salt Lake City, UT, June 2004.
- [5] Peel, L.D., "Personal Observations and Course Data," TAMUK, Kingsville TX, Oct 2004.