

MENTORING JUNIOR FACULTY

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There are few articles written about mentoring young faculty. This I discovered three years ago when I was asked by our upper administration to give a talk to new chairs about this very issue. Northwestern's chairs—regardless of discipline, be it religion, geology, or chemistry—assume responsibilities at the same time; they all receive orientation talks ranging from human resources and budgeting to talks by “experienced chairs.” My assigned talk on mentoring belonged in this latter category. I found little, however, to help organize my thoughts,^[1] with the possible exception of mentoring and teaching.^[2] I found the gap surprising, especially since young faculty are arguably the most important resource in a department and mentoring is something that should be done on a routine basis.

I decided to compile a list of positive statements, condensing common sense and making it common, with brief explanatory notes as to content and setting. Since then I have given this talk a few times and I have been encouraged to make it public. I am aware, however, that many chairs will feel about these admonitions as Monsieur Jourdain in Molière's *Le Bourgeois Gentilhomme* did when he discovered to his amazement that he had been speaking prose all his life. I tried, therefore, to restrict comments to a minimum. If the idea is good, what is said, even if terse, should suffice; if it is not, more words would not strengthen the case.



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■ *Keep Them Focused on the Big Picture*

Most young faculty, after years of having focused narrowly on a PhD topic, do not have an appreciation of chemical engineering as a whole.

- Help them to identify the “why” (why they do what they do). What part of the ChE spectrum do they occupy?
- Help them to identify the audience. Who is their constituency?
- Advise them on what invitations to accept and which ones to reject (it is easy to get distracted by multiple requests).
- Identify ambitious targets. Publish in high-visibility places (unread papers are useless).

■ *Connect Them to the Profession at Large*

It is up to the department to help with networking. Editors housed in the department may be of use.

- Use them as referees (if editors are in the departments; editors are always looking for reliable referees)
- See that they are invited to meetings.
- Ask them to run seminar series with external speakers.

■ *Provide Serious Mid-Course Feedback*

Three-year contract renewal should be used as a serious opportunity for positive feedback.

- Use contract renewal to seek outside letters.

■ **Help with Funding**

Funding is tight, and funding is ultimately an individual responsibility.

- Help to identify research opportunities.
- Keep them focused—accept that temporary setbacks are common!

■ **Explain Percentages**

Research should push the envelope, but not all research should be risky. For better or for worse, individuality still counts for a lot in most universities, and it is risky to blur it by carrying out exclusively multiple-investigator projects.

- Type of research: 70% “sure-shot”; 30% “high risk/high reward”
- Interactions: 70% commanding voice; 30% truly interactive

■ **Keep a Close Eye on Teaching**

Teaching evaluations is only part of the picture. Beginning teachers do not want to appear simplistic.

- Attend a few lectures—make sure they do not overshoot (people do not want to appear trivial, so they may flood students with difficult material).

■ **Shield Them from Bureaucracy**

New faculty are normally not prepared to deal with multiple and continual requests for their time.

- Leave the first quarter free.
- Place them on easy committees (but involve them in big decisions such as new faculty positions).

■ **Make Sure They are Known to the Department**

It is easy to lose track of what new faculty are doing (in fact, after the interview seminar, other faculty members might not see them “in action” again).

- Present departmental research seminar a year prior to tenure.
- Ask them to talk in teaching seminars (organize a series of teaching seminars focusing on teaching philosophies, objectives, and styles).

■ **Establish Mentors Who Enjoy the Role**

There is not much point in doing this by decree. Departments have to create conditions where it is the natural thing to do. It is, however, important to appoint people who will take responsibility for new faculty (two is best).

■ **Get Them Students!**

Nothing much can be done without students. In a truly democratic advisor-selection process a few well-placed comments by senior faculty can help enormously.

- Senior faculty should (carefully) steer students to work with new faculty.
- If at all possible, provide two students for two years.

■ **Mentor by Walking Around**

Nothing can replace direct one-on-one contact. This is especially important in cases where there is no tradition of informal faculty luncheons.

- Drop by their offices.
- Have individual luncheons.

■ **Provide Yearly Written Evaluations**

Written comments are permanent.

- Do this for everyone on the faculty—always start by saying something positive.

■ **Make Sure They Know What it Takes to Get Tenure**

All of the above may be regarded as preparation for this step (and, if the mentoring has been successful, beyond). The ingredients are nearly universal—

- research
- teaching
- service

but the weight given to each is highly local. Make sure they understand the real requirements for tenure—what it really takes to succeed in their local environment.

REFERENCES

1. For example, the book *Chairing the Academic Department*, by A. Tucker, New York: ACE/McMillan, 1984, covers lots of territory, but there is nothing specially targeted for junior faculty.
2. Felder, R.M., “Teaching Teachers to Teach,” *Chem. Eng. Ed.*, 27(3), 176 (1993) □