

## Tenure by Teaching

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The basic tenure documentation at almost every university is based on three areas: Teaching, Research and Service. Typically, teaching is listed first in the faculty's promotion document, but many times it rates last on the faculty members list of importance.

Can you get tenure based on teaching? And, if so, can it be done at a major research university? Teaching alone will not work, but excellent teaching plus some work in the other two areas can produce a yes to both questions. To prove this is possible, this paper will detail the steps the author used at a major engineering research university to successfully reach promotion and tenure based largely on teaching.

### The Rules of the Game

Getting tenure is nothing but a game, and like all games, it has a set of rules that keep the game under control and a set of officials that monitor the game. The rules are governed by the university's policies, and the officials are the members of the promotion committees. For example, the following are the rules at my institution, and they are listed under the general criteria for promotion section of the university promotion policy. "The tasks of the university members are to acquire, discover, appraise and disseminate knowledge. They should communicate this knowledge and the manner of its acquisition or discovery to their immediate community of students and scholars, to their profession, and to society at large. Service to the institution, the community, the State, and the nation constitutes an important mission of the university faculty members. As an institution of higher education with a commitment to excellence and a diversity of missions, this university values creative endeavor, research, and scholarship; teaching in its many forms; and extension and outreach activities. To be considered for promotion, a faculty member should have demonstrated excellence in at least one of these areas. Ordinarily, strength should be manifest in more than one of these areas."

The key components of this rule are "creative endeavor, research, and scholarship" more commonly known as Research; "Teaching in its many forms"; and "extension and outreach activities" more commonly known as Service. Thus, the three key components are Research, Teaching and Service, but contrary to popular belief, they are not the rule. The basic rule and/or tenure policy is clearly stated as "To be considered for promotion, a faculty member should have demonstrated excellence in at least one of these areas, and have strengths in the others." Therefore, to get tenure all you must do is show excellence in any one area, nowhere in the rules does it state the only area that counts is Research. Teaching is just as important a mission at any public university and can be the reason for tenure and promotion. Now that you know the rules, let's assume you want to use teaching as your method for promotion, what is the best way to play the game?

### The Playing Field

The general procedure for tenure and promotion is that during the first semester of each academic year, the head of each department convenes the Primary Committee, which consists of all tenured full professors in the department. The department head acts as chair of the Primary Committee. When a person is nominated for promotion by any member of the Primary Committee and the nomination is seconded, the voting members of the Primary Committee vote on the nomination by secret ballot. The department head then prepares a form for each nominee for whom a majority **affirmative** vote is obtained and this form is forwarded to the dean of the school for consideration by the Area Committee. Typically, the department head may also forward a nomination form for a



person nominated in the Primary Committee who did not receive a simple majority vote. The department head **does not** cast a vote in the Primary Committee; rather his/her recommendation appears separate from the Primary Committee's recommendation on the promotion document.

"The Area Committee consists of the dean, serving as chair, all the **department** heads, plus tenured full professors elected by the voting faculty of the school according to the procedures established by that faculty. Typically, at least one-third of the membership of each Area Committee consists of tenured faculty members without administrative responsibilities. Each nomination is considered and discussed individually by the Area Committee, after which a secret ballot is held. The results of the ballot and a recommendation by the dean is recorded on the nomination form. The dean does not cast a vote in the Area Committee, rather his/her recommendation appears separate from the Area Committee's recommendation on the promotion document.

Only nominations which have received at least a simple majority vote from the Area Committee or the support of the dean are considered by the University Committee. This committee, following a secret ballot on each nomination, records the result of this ballot on a form which also shows the results of the balloting by the Primary and Area Committees. These forms are then transmitted to the president of the university who, in turn, makes his/her recommendations to the Board of Trustees for final action. The University Committee typically consists of the Executive Vice President for Academic Affairs, the dean of the Graduate School, the academic school deans, and tenured faculty members nominated by the University Senate.

## **Your Game Plan**

The above requirements and procedures are intended to guide all academic units of the university. Implementation of the requirements is assured through review by successive committees. The committee members respond to each tenure or promotion nomination as individuals, interpreting achievements described in the nominating documents in the light of standards appropriate for the nominee's discipline and the stature and aspiration of the university.

Let's summarize; assume that the candidate wants to get promoted based on Teaching, s/he must excel in Teaching and show strengths in Research and Service. The candidate must be nominated and pass the Primary Committee, pass the Area Committee, pass the University Committee and be approved by the Board of Trustees. The key concept is that, in addition to the rules listed above, the officials are interpreting the rules based on the standards appropriate for the nominee's discipline and the stature and aspiration of the university.

**Step1** The first step in the process is you must determine if excellent teaching is within the definition of the university's stature and aspiration. Teaching should not be considered an easy solution to the tenure problem. Status as an excellent teacher is just as difficult to reach as the status as an excellent researcher. Excellent teaching requires very hard work and, if done properly, will consume your time. If this is what you want to devote your life to, then you should be proud of your choice and pursue it with all your energy. But if your university does not value this product, then why would you want to work for someone that does not value your hard work? Thus, if teaching is not consistent with the stature and aspiration of your university, then your best move would be to leave that university and find one that will appreciate your work.

Thus, the **first** and the most important step is to get on the right team. The easiest way to" do this is to ask your department head for a list of all the professors in the department and/or college promoted based on teaching. If a list exists, then you know the university values teaching and you are on the right team. If a list does not exist then get "face to face" with your department head and dean and ask them point blank if they will support you for promotion based on teaching. If they say no, then leave the university, if they say yes, and put it in writing, you must be prepared to take the next step.

**Step2** To get the game started, you must get nominated by someone on the Primary Committee. Thus, the next step is to find a full professor in your department that believes in the value of teaching and develop a relationship with this person(s). You need an advocate on the Primary Committee, why not have one that has the same value system as you. You can use the indirect method of finding this person, by reviewing ASEE publications, such as, journal and/or PRISM articles, the Annual conference proceedings, Sectional conference proceedings, and Division conference proceedings (i.e. Frontiers in Education Conference). Look for people from your department, if you find some then this is a good person(s) to start with. If there are none, look at all



the other universities that are publishing and return to Step 1. If your personality is more of the direct type, just ask each person in your Primary Committee their views on teaching and its importance.

Once you find your mentor, the next part of the step is to determine if your teaching excellence will produce a majority affirmative vote at the Primary Committee. These are questions you should be asking yourself before you take any job at any university. You are about to commit five to seven years of your life to this process, it is not something you should take lightly.

**Step 3** The department head sits on the Primary and Area Committees and the dean sits on the Area and University Committees, thus, the next step is to make these people look good. The best way to do this is make them look good in the eyes of the university administration, especially the people that determine the funding levels.

There is a unique window of opportunity open today for good teachers, because the enrollment in engineering is down at a number of universities. Every president is preaching the recruitment and retention message to their deans. Thus, when the teaching assignments are made, ask for the big first and second year courses with the highest failure rates in your department. These are the courses that will provide you the opportunity to make the largest impact on retention. Then research all the academic records on these courses, and document the historical performance in these courses and the performance of the students in the follow-up courses. Your job is to make a dramatic improvement in the retention data and convert this into tuition dollars. For example, if you can improve the retention from 60% to 80% in a class of 200 students, that is 40 additional bodies paying \$5000 a year in tuition or an additional \$200,000/year of income for your university. This will get the attention of all the “bean counters” and your department head and dean will quickly get the credit for improving the university retention. This will make you look very good in the eyes of two very important people in the tenure process.

You will make enemies as you make the changes in these classes required to improve the student performance. One piece of advice, make all your enemies as early as possible. It will take at least five to seven years to get promoted, and most people only remember one to two years, so be bold early in the process. Don’t ask for permission to make the changes, it is easier to ask for forgiveness than to get people to agree on a new procedure. You only have a few short years to make an impact, if you are implementing sound teaching techniques, your changes will work. You must just trust your abilities.

**Step 4** You must document your work. Do not leave any holes, excuses for people to vote no, in your promotion document. If your committee members are expecting something on topics A, B, C etc., then make sure you have something in these areas by the end of the forth or fifth year. If your university has a guideline for your document, then use it; if not, Figure 1 contains a copy of the recommended guidelines at my institution. Let’s step through the material in Figure 1 and list the type of material that would be listed in each section. The General Information Section is basically a resume. Since you will be basing your tenure on teaching, I believe the Awards and Honors section should list at least three teaching awards.

Section A should contain all the data on your teaching accomplishments. List all the classes you taught under section A. 1, include year taught, semester, course number, course description and enrollment. It is very important that there are a large number of undergraduate courses listed in this section, and a significant number of the classes should have high enrollment numbers. The high enrollment courses are required to stop committee members from saying things like “It is easy to teach classes of small enrollments, or anyone can teach small graduate courses.” Section A.2 should document your administrative abilities. Large classes typically require the organization of a large number of TAs, graders and/or tutors. Maybe the courses will require the formation of a tutoring room or special TA evening office hours, list all of these supervisory responsibilities. To accomplish my teaching techniques, I had to create and fund a tutoring room for the students. The funding of this facility can also be used to satisfy the external grant funding requirements in section B. Section A.3 should detail the changes and improvements you made in your courses to enhance the retention of the students in your department. Data on increased class sizes and increased student contact should be included. Note, if you are doing your job correctly, your status as a good teacher will spread throughout the university and the enrollment in your classes should grow. This growth should be listed as evidence of your excellent teaching abilities.

Section A.4 should list all the study guides, lab manuals, class notes, etc. you create to improve your **teaching** effectiveness. In section A.5 list all the experiments you tried in the various courses to improve student understanding of the material. If you do the experiments correctly, each one should result in a publication that can be listed in **Section B**. To complete section A.6 will require you to attend workshops on teaching. There are **always** teaching workshops at ASEE conferences; thus, have your department fund your **first** few trips to ASEE conferences by having them pay for you to attend these workshops. Then use this opportunity to get involved with various divisions of ASEE or any other engineering society. This involvement is required in Section C of your document. Section A.7 should list all your teaching rating. Every university has some type of Instructor Appraisal System, your document must contain this data if you want to get promoted on teaching, and the data must show excellent rating. From my experience, if you are a good teacher your rating will be outstanding, and these rating will produce a number of teaching awards which will be listed under section A.8. If you want to get promoted on teaching you must be awarded your department's best teacher award, preferably more than once, and either the best engineering teacher award or the best university teacher award. This will not be easy, but it is the minimum requirements for promotion by teaching. Section A.9 is where you document you successful teaching by listing the improved retention data. If this section is prepared properly, it should make an excellent journal paper for section B. Finally, if your work is truly successful, someone will want to copy **it**; you list this under section A. 10,

Section B. 1 should list all the printed material you generate as a result of your teaching. In the first section list all the study guides, Lab Manuals, Text Books, Class Notes, etc. you produced to improve the students' understanding of the material. If you document all your work and use academic records as proof of your teaching skills, you should have no problem writing at least 2 journal articles on topics such as "small group learning, effectively teaching large lecture courses, computers in the classroom, incorporating advising into the classroom, etc., and should be able to produce at least two conference publications per year. Thus, by the end of your fifth year, you should have at least 10 conference publications and 2 journal articles directly related to your research area of improving undergraduate engineering education. As you present your work at various conferences, your status should create the opportunity for you to get invited to give lectures on teaching at various universities or conferences, this data should be listed in section B.2. After you get your classes organized, you will have time to begin a small research activities in your field and begin teaching research work with your graduate students. Teach your excellent teaching techniques to the departments graduate students, by holding teaching seminars and giving graduate students direct feedback by sitting in on a few of their teaching assignments. This work should be listed under sections B.3 and B.4. Funding for improved teaching is available from government and private funding agencies. For example, if your teaching improves the retention of all students, then you will also make a significant impact on the underrepresented populations such as women and minorities. There are a large number of corporations and foundations that will provide funding for your activities if you can show that it improves the retention of women and minorities. In fact, most universities provide internal funding for innovative teaching, etc. Seek out funding in this area and list all your grants no matter how big or small under sections B.5 and B .6. In addition to providing a source of funding, the area of improved women and minority retention has a large number of conferences and/or journals that can publish your work. If you make a significant improvement in the retention of women and minorities, there is also the possibility for national recognition and an unlimited number of possibilities for interdisciplinary activities.

Excellent teachers by their nature also get involved in various professional societies, this involvement is listed in Section C. Typically the reason students have trouble with a curriculum is because the department lacks the necessary support systems. Thus, to get the retention results you want, you will have to create some kind of additional support programs for the students. Maybe it will take the form of some type of tutorial program, a K - 12 **pre-college** program to help recruit students or convince them to get the proper courses in high school, a new registration system or testing program for incoming students, or the creation of a department tutoring room. These activities are listed under section C. 1. As you publish your teaching results at conferences (such as ASEE), take the opportunity to get involved with the society. I suggest you start at the Sectional level, present a paper, then volunteer to act as a reviewer. This will lead to chairing a session at the conference and officer positions. The Sectional level is important, because each ASEE Section has Sectional Teaching Awards and the DOW Award. Being awarded any of these would help document your teaching abilities. This involvement will allow you to list activities under sections C.2, C.5, C.6 and C.8. The remaining requirements of Section C are involvement at your institution with advising, recruiting, committee assignments and involvement with student groups.



## Conclusion

If want to devote your life to teaching, and your institution does not recognize individuals for this, then the **first** thing to do is find a different university. Not all universities reward teaching; however, if you follow the **rules** of your university and prepare a document as described above, getting tenure by teaching is possible.

Excellent teaching by itself is not enough, you must also show activities in Research and Service. However, if you treat teaching as your research area, there are publications and professional engineering societies where you can publish your work and become an active member.

The most important thing to remember is that receiving promotion and tenure is your responsibility, not your department heads or any other faculty member in your department. Getting tenure by teaching is just as difficult as getting it through research; thus, do not use teaching as a back door into your department. Always keep one thing in mind, if your teaching is good even if your peers do not appreciate your work, your students will.

### Figure 1 Recommended Format for Promotion Document

#### General Information

- Academic Appointments:
- Industrial, Business, and Governmental Positions:
- Licenses and Registration:
- Awards and Honors:
- Memberships in Academic, Professional and Scholarly Societies:
- Educational Background:

#### Section A "Teaching"

- A.1) Courses Taught During Past xxx Years
- A.2) Administrative/Supervisory Responsibility for Courses in Past xxx Years
- A.3) Contributions in Courses and Curriculum Development
- A.4) Preparation of Instructional Materials
- A.5) Experimentation in Teaching Methods and Techniques
- A.6) Special Activities which have Contributed to Teaching Effectiveness
- A.7) Recognition Received from Students
- A.8) Recognition Received from Department/University
- A.9) Evidence of Impact on Students
- A.10) Other Evidence of Teaching Excellence and Interdisciplinary Activity

#### Section B "Creative Endeavor, Research, Scholarship"

- B.1 Published Work
  - a) Study guides, Lab Manuals, Text Books, Class Notes
  - b) Refereed Journal Articles
  - c) Refereed Conference Publications
  - d) Other Publications
  - e) Dissertation
- B.2 Invited Lectures
- B.3 Other Evidence of Creative Excellence
- B.4 Involvement with Graduate Research
- B.5 External Grants Received
- B.6 University Grants Received
- B.7 Evidence of Interdisciplinary Activity
- B.8 Evidence of National or International Recognition

#### Section C "Extension, Service And University Outreach Activities"

- C.1 Major programs Administered
- C.2 Conference Participation
- C.3 Advising, Counseling and Recruiting Students:
- C.4 University and Departmental Administrative Service
- C.5 Offices in Professional Engineering Organizations
- C.6 Public and Government Service
- C.7 Advisor to Student Organizations
- C.8 Evidence of National Recognition
- C.9 Consulting Activities

