

## **Guidelines for Evaluating Technion Academic Staff for Tenure and Promotions**

(This document equally addresses both males and females, but refers to male solely for convenient purposes).

Excellences in research and in teaching are the most important elements in evaluating a Technion staff member's candidacy for tenure and promotion, since the Technion is committed for distinction, both as a research university and as a leading institute in Israel for educating engineers, scientists, physicians and architects.

The purpose of this document is to specify the achievements, actions and criteria by which a staff member's quality is determined at the Technion. Describing the expectations and demands of the Institute, as well as the tools and criteria used by promotion and tenure committees as they make their decisions, is essential for the transparency of the process and for ensuring the excellence and high quality of staff members.

### **The Criteria:**

1. ***Excellence in research:*** The first and most important criterion in evaluating a staff member for tenure and promotion is distinction in a specific research field. An excellent researcher is known as a leading researcher, in the broad sense, in his field. When considering a candidate for tenure and for promotions to ranks lower than a Full Professor, said excellence is relative to that of the candidate's colleagues in his research field worldwide, and to his potential to be among future leaders in that field. A candidate for Full Professorship is expected to be among the leaders in his research field, and his scientific achievements should have already made their unique marks in his field.
2. ***Teaching quality:*** The second criterion in evaluating a staff member for tenure and promotion are achievements in teaching, which are indicative of the candidate's high teaching quality. Teaching is defined here in its broad sense and includes teaching in multi-student courses, advanced degrees courses, laboratory courses, counseling students, mentoring students for advanced degrees and in projects, designing and writing teaching programs and syllabi, developing courses and teaching methods, etc. Particularly, evaluating the candidate's teaching also includes teaching and mentoring students for undergraduate degrees, advanced degrees and post-doctorates.
3. ***Citizenship:*** The third criterion in evaluating a staff member for tenure and promotion is the candidate's service to the faculty and to the Institute (a.k.a. as citizenship in the faculty and the Technion). A Technion staff member is expected to contribute significantly to the scientific life in the faculty, in the Technion and to the scientific community in Israel and abroad. He is also expected to take part in activities which enrich and promote the faculty, the Technion and the community (i.e., educational activities in schools and in the community), as well as the whole of mankind. Such activities also include active participation in faculty, institutional, national and scientific committees. These activities are very important and contribute a lot to the candidate's evaluation process, but they cannot compensate for failures to meet the first two criteria.

### **The tools used for the evaluation**

1. ***How is the quality of research measured?***

The faculty and Senate committees which discuss tenures and promotions use a variety of tools to study, evaluate and determine how and if a staff member meets the above mentioned criteria. First and foremost in its importance is the candidate's list of publications. Special attention is given to the quality of the journals in which the candidate publishes and to the conferences in which his research results come to light. The number of publications is also important, but not as much as the quality and the competitiveness of the journals, the conferences and the books in which the candidate's scientific work was published. The committees also consider invitations to lecture in important conferences, winning competitive and non-competitive research grants, mentoring students for advanced degrees and other activities.

- a. The 1<sup>st</sup> evaluation tool presented to the committees is the candidate's curriculum vitae (the CV). This document specifies the candidate's achievements in research, teaching and other activities, as described below. The CV should be edited according to the Technion specifications (which can be downloaded from the Office for Academic Staff's website).
- b. The 2<sup>nd</sup> tool is the set of evaluation letters. The Technion collects, secretly and discretely, 8-10 opinions from leading researchers in the candidate's research field. Usually, these letters are from researchers who are not and never had been in working relations with the candidate. The writers of the evaluation letters are among the most excellent and prominent in their field and are usually staff members in leading universities. They are all well-versed and have extensive experience in the academic processes of evaluating candidates in their own institutions. All of them are asked a number of questions about the candidate's research achievements and his standing in the research community. They are also asked to rank the candidate among peers who are at the same current stage in their academic careers and to specifically state whether the candidate would merit tenure and/or promotion in a similar university in their country (an example of an evaluation request is attached as addendum to this document). The evaluation letters are very carefully reviewed by the committees and they paint a clear and exact picture of the candidate's research achievements and his standing in the scientific community.
- c. Other tools used by the committees are quantitative, i.e., number of citations, the H-index, the Impact Factor values of the journals, etc. These objective tools help complete the picture of the achievements' quality, but in no way do they replace the outside evaluation letters and the other tools used for measuring quality. These quantitative tools vastly differ from one another in the various fields and committee members are very well aware of that. Accordingly, use of these tools considers the norm in the candidate's specific field, and the committees draw comparisons to the same parameters among researchers in the same field and in the same stage of career as that of the candidate's. Careful attention is given to the very large differences in citation cultures, the IFs of leading journals in each field, the number of authors of publications and the order in which they appear, the importance of publishing in conferences and in journals and the suitability of these parameters to each field that exists in the Technion. As mentioned, committee members are familiar with the parameters of these fields, and comparison of quantitative parameters is only drawn among researchers in the same field and in the same academic seniority.
- d. Additional parameters which attest to the candidate's standing in the academic community in his field, the quality of his research and his international visibility are invitations to lecture in prestigious international conferences, where there's a fierce competition for invitations; organizing conferences; winning awards; winning research grants from competitive funds. In such funds, the proposals are reviewed by experts who are well versed in the research field. Winning such a competitive grant is indicative of the proposal's excellence and of the trust the scientific community places in the staff

member's abilities. The Technion expects his staff members to win such competitive research grants. A Technion staff member will sponsor his researches through the grants he will win from competitive grants, and also from non-competitive funds or from funds which are not peer reviewed by experts. Winning competitive grants is testimony to the researcher's quality and greatly adds to the evaluation of the research. Winning other grants also adds to the candidate's quality.

- e. Other testimonies to the candidate's academic standing and the appreciation with which his colleagues regard him and of the trust they place in him, are his membership in editorial boards of prestigious journals; chairing prestigious conferences or serving on their program committee; invitations to lecture in international conferences in which there's intense competition for such invitations; serving and performing in similar capacities or duties.

## **2. How is the quality of teaching measured?**

As mentioned earlier, good teaching is an inseparable part of evaluating a candidate's quality and a staff member at the Technion is expected to be a good and dedicated teacher. A staff member who cannot teach basic, multi-student courses according to the demands of the Technion, will usually not get tenure at the Technion and his promotion will be compromised. The quality of teaching is measured by the teaching evaluation questionnaires, Excellence in Teaching awards and evaluating teaching quality by colleagues in the faculty, by the Dean and by the Center for the Promotion of Learning and Teaching.

In evaluating the teaching questionnaire results, only questionnaires where the number of responders was greater than 30 are taken into consideration, and the promotion committees also consider the average score of teachers in the same subject. The promotion committees also consider measures taken by the candidate to improve the quality of his teaching. For example, receiving guidance and being monitored by the Center for the Promotion of Learning and Teaching, being mentored by excellent teachers and participating in teaching workshops.

Educating and mentoring students for advanced degrees are among the foundations of a Technion staff member's work. The quality of the mentored students is measured by their publications in leading journals, by their active participation in conferences and by winning competitive scholarships and awards. This qualitative parameter is an important aspect in evaluating a candidate's promotion and/or tenure. An obvious lack of mentoring advanced degree students depreciates from the candidate's value.

A note about unique research and teaching fields: The fact that a staff member is the only one to teach a course in a certain field, be it as specific as it may, is not in itself a reason to grant him tenure if the quality of his research achievements does not justify it. Should a staff member who teaches such a course be denied tenure, the teaching of the course will be undertaken by an outside teacher. The same is true for a research field which the faculty and the Technion want to initiate and/or promote, or in case expensive equipment is purchased for the execution of such a research. As in teaching, uniqueness in itself will not be a sufficient reason for granting tenure to a staff member whose research quality does not justify it.

## **3. How is the citizenship evaluated?**

A staff member is expected to be active in the life of the faculty and to contribute to the enrichment of the scientific life of research and teaching. Such activities include participating in and conducting of seminars, taking part in faculty and Technion committees and initiating activities that enhance the research, teaching, educational and social endeavors of the faculty and the Technion. They also include the taking on of managerial roles. All the above are part-and-parcel of being a staff member at the Technion.

As mentioned previously, good citizenship highly enhances the quality of a candidate's file, but cannot replace significant lacks in excellence in research and teaching.

## Appendix

An example of the official text on the request for evaluation letter for granting tenure to a faculty member. The letters asking evaluation for promotions are the similar with the corresponding adjasments.

### Personal & Confidential

Dear Prof. \_\_\_\_\_

I would greatly appreciate your advice and assistance regarding the granting of tenure to Dr. \_\_\_\_\_ in the Faculty of \_\_\_\_\_ (Dr. \_\_\_\_\_ is currently an Associate Professor/ Assistant Professor).

The expert opinion of senior scientists from outside the Technion is an essential component in the process of evaluation of candidates for tenure at the Technion. Therefore, I would very much appreciate your candid opinion concerning the merit of Dr. \_\_\_\_\_ for the above mentioned promotion. It would be very helpful if you could refer to the following points, where possible.

- Dr. \_\_\_\_\_'s main professional contributions and achievements.
- Originality, creativity, and independence in the work of Dr. \_\_\_\_\_.
- The impact of Dr. \_\_\_\_\_'s publications.
- The quality of the journals in which Dr. \_\_\_\_\_ has published.
- Collaboration or other contacts you may have had with Dr. \_\_\_\_\_.
- Your ranking of Dr. \_\_\_\_\_ among the group of scholars of similar seniority in the same research field.
- Would Dr. \_\_\_\_\_ merit a similar promotion in a University of high standing in your country?

In evaluating a candidate we take into consideration, in addition to professional achievements, qualities such as teaching ability, character, leadership, and capacity for collaboration with other colleagues. If you happen to have knowledge of these qualities of Dr. \_\_\_\_\_, please share it with us.

Please note that appointments and promotions at the Technion are based exclusively on merit and not on the availability of positions at a given rank.

Enclosed please find Dr. \_\_\_\_\_'s resume and selected papers. I will be happy to provide you with any additional information or publications you may need for your evaluation.

Thank you very much for your assistance in this important matter. Needless to say, your reply will be held in strict confidence.

We would appreciate receiving your reply within 6 weeks (that is, until month/day/year). An e-mail reply would also be most welcome.

Sincerely yours,