

Excerpt from
**Coordination of the procedures for promotion to full professor at the science
faculties of NTNU, UiB, UiO and UiT^{*)}**

Adopted by the National Faculty Meeting of Sciences and National Council for Technological Education 2011
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4. Outline of requirements for qualification

In order to qualify for promotion to full professor; applicants must possess expertise commensurate with the requirements that generally apply to professorships in the fields of MST¹ nationally and internationally. In order to be awarded promotion, this expertise must be indisputable. As far as possible, qualification requirements should be consistent across all disciplines in the relevant MST subject area. Since the Ministry of Education's regulations provide no guidelines as to which qualifications are necessary to attain professorial competence, it is assumed that an overall discretionary and comprehensive assessment of qualifications will be undertaken.

The National Faculty Meeting of Sciences and the National Council for Technological Education have advised institutions to use the below qualification requirements as a basis. Therefore, the requirements for professor in the fields of MST must be made to match the established national standards, as mentioned in the regulations, as closely as possible.

The following description of qualification requirements is intended as a recommended guideline for committees assessing candidates for personal promotion under the promotion scheme. The objective is to help ensure consistent practice and a satisfactory quality level across subject areas and institutions.

4.1 Qualification requirements

For a candidate to be deemed indisputably eligible for personal promotion to full professor within his/her field, the following criteria in relation to expertise, qualifications and experience must be met:

1 Scientific qualifications

The applicant's academic qualifications should be thoroughly documented and judged by the committee to be excellent in the field in which promotion is applied for. The applicant's scientific competence must be assessed as good or even better when measured against international standards for professorships in the relevant field.

The scientific output should show deep understanding of the applicant's specialized subject area, good knowledge of the broader subject area and extensive insight into adjacent areas. The committee should use widely recognized bibliometric indicators and accepted scientific standards when assessing selected works.

Scientific output from the last 5 years should be given particular consideration, in terms of both quality and scope. This output must substantiate continued activity at the level of professor. The most important element in the assessment of scientific

¹ MST = Mathematics, Science, and Technology

^{*)} NTNU = Norwegian University of Science and Technology
UiB = University of Bergen
UiO = University of Oslo
UiT = University of Tromsø

merit should be international scientific publications with peer review. This can include papers in journals and/or articles in books and book chapters; in some cases other types of publications may also be considered. Scientific papers without peer review will not be given significant weight.

In addition to publications, any patents, innovation and documented research work underlying the processes in public administration and industry should be given additional weight. The emphasis on academic skills as against patents, innovation, etc., will naturally vary between disciplines, but should be based on subject-specific international standards for what constitutes expertise in the field.

2 Pedagogical qualifications, teaching and supervision

Teaching qualifications and skills should be of a high standard, and experience at both graduate and undergraduate levels should be documented. The extent of the experience, qualifications, skills and general competence should clearly exceed the average requirements for permanent appointments to associate professorship and equate at least two years' experience as associate professor. Pedagogical qualifications, pedagogic development and educational leadership and also experience documented through self-produced teaching aids, such as textbooks, compendia or similar, should also be given emphasis. The applicant must have completed courses in university and college teacher education in accordance with the applicable requirements for appointment to a permanent academic post at the applicant's institution.

The applicant should specifically be able to demonstrate proficiency and experience in the supervision of PhD candidates. Applicants should normally have been the main supervisor for at least two PhD candidates during their work and including the completion of their PhD before the applicant's promotion can be considered.

3 Scientific management experience

The applicant should have demonstrated good leadership skills, and in particular have shown research and educational management skills of a high standard. Importance should be placed on the ability to initiate and lead research. General experience in the initiation and coordination of research, development and the management of research groups as well as academic and administrative work should also be given particular consideration.

4 Networking and collaboration

The applicant should have demonstrated good networking and collaboration skills both nationally and internationally. This should also include participation in consortia and formal institutional networks. It should be considered an advantage if these collaborations include both research and education.

5 External funding

The applicant should have documented the ability to attract external funding of research projects. (This requirement must be viewed in the light of available external financing in the field.) Participations in joint applications should be credited, but the applicant's role in such applications should be outlined.

6 International profile

The applicant should document his/her activities in the international research arena, and demonstrate that his/her research is of importance to the field internationally. This may be evidenced by international research collaboration; participation in, and assignments for international scientific forums; work as an

authority for journals and/or institutions; and citations in the international literature.

7 Administrative experience

Applicants should have experience in administrative work in academia, such as participation in, and/or management of units and committees at universities or other research-related institutions.

8 Dissemination/outreach

Applicants should have experience in communicating scientific debate and results to forums outside of academia. Relevant expertise may include: dissemination to the general public through popular scientific activities (publications, lectures, etc); communication via public media (TV, radio, newspapers, magazines); and dissemination to users in public administration and industry.

4.2 Overall judgment

It is stressed that beyond the assessment of individual requirements, a *comprehensive* assessment of the applicant's qualifications and skills should be made. If the applicant is particularly strong in some of the areas mentioned above, this may partially compensate for possible deficiencies in other areas. Documented experience in research and development in a relevant industry, innovation activities and patents granted, or a proven outstanding ability to disseminate research and educational activities can also count positively, but cannot compensate per se for a lack of scientific qualifications. Likewise, proven ability to change the direction of one's own discipline may be a positive element in cases where such change is necessary and/or preferable with regard to the overall development of the discipline.

4.3 Delimitation of the discipline

According to the regulations for the promotion scheme, the applicant may be assessed only (quote) "in the discipline in which the applicant is employed". This does not imply that the applicant should only be assessed *in relation to the topic mentioned in the original job description*. Such a strict interpretation could contribute to stagnation in the discipline and a decrease in the development of new disciplines. It follows that proven ability to change the direction of one's own discipline or subject area should count positively in cases where such change is academically relevant.

The regulations specify, however, that the applicant must be able to "contribute to the subjects that are offered by the institution". If the applicant's profile of competencies makes him/her eligible for a possible promotion and is considered by the applicant's immediate superior to fit the professional profile of their department and research group, then this should be sufficient for the applicant to be considered on his/her own terms.

Beyond the above, reference is made to applicable regulations for the promotion scheme.

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