

National disciplinary strategic unit for mathematics, natural sciences and technology (UHR-MNT)

Coordination of the Processes for Promotion to Professor in the MNT Fields

at

Faculty of Information Technology and Electrical Engineering (NTNU)
Faculty of Natural Sciences (NTNU)
Faculty of Engineering Science (NTNU)
Faculty of Science and Technology (UiB)
Faculty of Mathematics and Natural Sciences (UiO)
Faculty of Health Sciences (UiT)
Faculty of Biosciences, Fisheries and Economics (UiT)
Faculty of Science and Technology (UiT)
Faculty of Engineering Science and Technology (UiT)
Norwegian University of Life Sciences (NMBU)
The University Centre in Svalbard (UNIS)

All other departments or faculties with MNT disciplines are free to use this scheme.

It is a condition for coordination of the procedures and requirements for promotion in the STEM subjects that the plan and requirements are in accordance with the Ministry of Education and Research's Regulations of 28 June 2024 No. 1392 to the Universities and Colleges Act (hereafter: the Universities and Colleges Regulation).

Approved by the National Council for Technical Education (NRT) and the National Faculty Meeting of Sciences on 19 August 2019, revised by UHR-MNT in November 2018, September 2020, August 2021, May 2024 and June 2025.

This is an unofficial translation of the Norwegian version of the guidelines and is provided for information purposes only. In the event of any inconsistency, the Norwegian version shall prevail.

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1. Introduction

1.1 Authority

The authority to evaluate promotions in teaching and research positions lies with the institutions, pursuant to the Universities and Colleges Regulation, Chapter 3¹ under the Universities and Colleges Act. From 2012, with revisions in 2016, 2018 and 2020, UHR-MNT's predecessors² established a joint scheme of national assessment committees and common requirements for promotion for the technology and sciences faculties at the major universities. The scheme can be used by all STEM faculties/departments in the higher education sector. The boards of faculties/departments that choose to apply the coordinated scheme will adopt the guidelines for coordination and requirements, with any additional requirements.

1.2 Objectives

The objectives of coordination and joint requirements are:

- High quality of assessments
- Common level and criteria for assessments
- Contributing to gender balance and diversity
- Keeping the number of committees to a minimum
- · Continuity in assessment processes
- · Flexibility and more rapid case processing
- Uniform case handling
- · Consistent practice in remuneration

2. Committee Structure

The following committee structure has been established (administrative faculty in parentheses):

- Biology (NTNU/NV)
- Pharmacy (UiO)
- Physics and Astronomy (UiO)
- Geology (UiB)
- Meteorology–Oceanography (UiB)
- Chemistry (UiT)
- Informatics (UiO)
- Pure Mathematics (NTNU/IE)
- Applied Mathematics (UiB)
- Statistics (UiO)
- Civil Engineering (NTNU/IV)
- Electrical Engineering (NTNU/IE)
- Mechanical Engineering (NTNU/IV)

¹ https://lovdata.no/dokument/SF/forskrift/2024-06-28-1392/KAPITTEL_3#KAPITTEL_3

² The National Faculty Meeting of Sciences and the National Council for Technological Education merged into UHR-MNT in 2018.

Agricultural and Food Sciences (NMBU)

As regards subjects such as chemistry, informatics and the natural sciences in the technological programmes, national assessment committees may consider them on the condition that supplementary committee members who have a background and qualifications of relevance to technology are appointed.

For assessments that are difficult to accommodate within the scope of one of the permanent committees, the applicant's faculty shall appoint a committee adapted to the field in question. If possible, one member from a related permanent committee should be a member of such special committees to ensure similar levels of qualification and uniform consideration. As a general rule, one member from a related permanent committee, selected by the applicant's department, shall participate in such special committees to ensure similar levels of qualification and uniform consideration.

3. Roles and Responsibilities

3.1 National Assessment Committees

Members of a National Assessment Committee will normally be proposed by the administrative faculty. Each institution/faculty that intends to use the committee for assessment must formally appoint its members.

Committee appointment and requirements for composition:

- Members are appointed for a term of four years.
- The committee must comprise at least three members with professor qualifications and must together be sufficiently qualified to assess the applicants' qualifications, with particular emphasis on scientific and educational qualifications. Only one member of the committee may come from the applicant's own institution.
- One of the members must represent the administrative faculty, and this person shall also chair the committee.
- The committee shall elect a deputy chair to lead the committee's work when assessing applicants from the administrative faculty's institution.
- At least one member must be from a foreign university or research institution.
- Both genders shall be represented.
- A committee member cannot be reappointed if she/he has served as a member for a continuous period of more than seven years at the time of appointment.
- If expedient, the composition of the committee may be discussed with the national discipline bodies for the subject area in question.
- The committee may (see the Regulations) be supplemented by one or more members with supplementary expertise. These supplementary committee members will in such cases be full members of the assessment committee during the assessment of the applications they are appointed to assess.
- Supplementary committee members are appointed by the applicant's institution/faculty.
- For applications from applicants applying for promotion to professor for the second time, at least one new supplementary committee member shall be appointed to replace, if relevant, one of the supplementary committee members who participated in the initial

- assessment.
- The committee shall be informed of general career development in academia and specifically what impedes and promotes the careers of women and minorities in academia.
- The committee must be informed of any additional qualification requirements adopted by the applicant's institution.

The chair of the committee is responsible for preparing a work plan and schedule for the committee's work and ensuring that they are complied with. The assessment committee's work should normally not take longer than three months.

3.2 The Administrative Faculty

The responsibilities and duties of the administrative faculty are to:

- Ensure, well before the deadline for applications, that the committee(s) is/are
 operational and propose the composition of the national assessment committee(s)
 for which the faculty is responsible according to the list in Chapter 2 Committee
 structure
- Submit information about the committee's composition, including any changes made during the period for which it is appointed, to other faculties/institutions that wish to make use of the scheme
- Cover any purely administrative costs relating to the committee in question

3.3 Applicant's Institution/Faculty

Applicants may only apply for promotion to professor at the institution/faculty where they are employed. The responsibilities and duties of the applicant's institution/faculty are to:

- Establish a common application deadline for affiliated institutions.
- Verify the accuracy of information provided regarding the applicant's role at the institution (teaching, supervision, leadership) before forwarding the application to the assessment committee.
- Formally appoint assessment committees to consider applications from the
 institution's employees based on the proposal from the administrative faculty and
 appoint any supplementary members (see above). The applicant's faculty is
 responsible for verifying the impartiality of any supplementary member.
- Inform the assessment committee of any additional qualification requirements set by the institution/faculty
- Be responsible for the flow of documents and communication with the assessment committee from the time when the applications from the institution's own employees are submitted to the respective committees
- Have an administrative contact person for the case processing process
- Ensure that the applications from own employees are assessed within the agreed time limits, that the committee's work is efficient and complies with the applicable laws and regulations, and that necessary documentation is available
- Assess whether the committee's work complies with the applicable regulations

- and then forward the committee's statement to the applicants for comments, if any
- Forward any comments from the applicant to the committee for consideration and ensure that any comments and the committee's response accompany the case
- Process the assessment with any comments and responses in its own decisionmaking body
- Ensure that the rights of the applicant are safeguarded
- If relevant, appoint a new assessment committee for individual applications if this is deemed necessary in order to safeguard the rights of the applicant
- Pay external committee members' fees in accordance with the applicable rates.
 Committee members are external when they assess candidates from institutions other than the one in which the committee member is employed. Committee members are internal when they assess candidates from their own institution.

3.4 Procedure for Application for Promotion

- 1. The deadline shall be common for all affiliated institutions: currently 15 September.
- 2. The applicant's institution/faculty has appointed or will appoint the permanent assessment committees (prerequisite for participating in the scheme).
- 3. The applicant submits his/her application to his/her own faculty/institution.
- 4. The institution/faculty verifies formal requirements and confirms institutional information.
- 5. The applicant's faculty/institution considers whether a national committee can consider the application.
- 6. The institution/faculty proposes supplementary committee members upon request from the committee. The chair may also propose such members. Supplementary members shall be appointed as soon as possible and have full membership rights for the assessment.
- 7. The applicant's institution/faculty shall forward the application to the committee no later than one week after receipt together with information about any additional requirements stipulated by the institution/faculty, as well as information about the administrative contact person for the process at the applicant's institution/faculty.
- 8. The committee's total case processing time shall normally not exceed three months.
- 9. The committee's report shall state on what basis and in which field the applicant is declared competent, and whether the assessment is unanimous or divided.
- 10. The assessment committee sends its report to the applicant's institution/faculty, which will, as soon as the assessment has been received and quality-assured in accordance with the applicable regulations, forward the report to the applicant for comments, if any. Comments from the applicant is limited to one page. The applicant's deadline for replying is two weeks.
- 11. The applicant's institution/faculty sends the comments, if any, to the committee for consideration. The committee shall issue a supplementary statement based on the comments.
- 12. The body that has been delegated authority in promotion cases at the applicant's institution/faculty shall consider the committee's assessment. Pursuant to § 3-14 of

- the Universities and Colleges Regulation, the institution may grant promotion if the committee's assessment is unanimous.
- 13. The applicant shall be informed of the body's decision as soon as possible. The report is also sent to the applicant's department for information.

4. Qualification Description

To qualify for promotion, applicants must possess qualifications that in scope and nature (type, quality, breadth, depth) comply with international and national standards for professorships in the STEM disciplines. As far as possible, the qualification requirements shall be the same for all disciplines in the relevant STEM fields, but they shall be applied within the context of the individual discipline. For promotion to be granted, the qualifications must be indisputable.

The Universities and Colleges Regulation specifies the following qualification requirements:

§ 3-7. Professor

To meet the qualification requirements for professor, at a minimum:

- a. A doctoral degree in a relevant field, or equivalent competence documented by scholarly or artistic work of the same scope and quality.
- b. Educational competence, cf. § 3-8.
- c. Norwegian language proficiency at level B2.
- d. Substantial contributions to research or artistic development at the highest level, in accordance with international or national standards in the field.

Through the national coordination of promotions to professor, UHR-MNT recommends that the institutions use the qualification description below as a basis for promotion to professor, according to the Universities and Colleges regulation.

4.1 Qualification requirements and overall assessment

Committees shall make a holistic assessment of the applicant's qualifications as documented. The qualification requirements for promotion in the MNT fields follow the principles of UHR's guide for assessment in academic career paths (NOR-CAM). NOR-CAM is a tool for adapting processes for evaluation of results, competence, and experience that capture multiple dimensions of academic work. Bibliometric indicators should be used with caution and supplemented with other information. Assessment of scientific qualifications shall be based on the quality and originality of scholarly work. Publications will in most fields be central, but NOR-CAM provides for inclusion of multiple types of results and competences, including those related to research processes. Both documentation of results/competences and the applicant's reflections shall be considered. This is exemplified in the NOR-CAM matrix (Ref. 3). Institutions have developed their own NOR-CAM versions tailored to their needs.

Scientific and educational qualifications shall be given a higher weight than qualifications within the other qualification areas described. If the applicant does not meet the qualification requirement at professor level in either the scientific or educational qualification area, particularly strong qualifications in the other area cannot compensate for this shortcoming.

A documented ability to change course within one's own field can also be a positive factor in the assessment in cases where such a change is necessary and/or preferable to strengthen the general development of the discipline.

For a candidate to be deemed indisputably eligible for personal promotion to full professor within his/her field of employment, the following requirements are made as regards competence, qualifications and experience:

4.1.1 Research Output

The applicant's scientific qualifications must be thoroughly documented, and the committee must find them to be at a high level in the subject area in which promotion is applied. The applicant's scientific competence in the discipline in question must be assessed as good or even better when measured against the international standards for professorships in the relevant field. The applicant's scientific production must demonstrate a deep understanding of his/her own discipline, a broad and good insight into the field and broad insight into adjacent areas. Furthermore, it must be clearly demonstrated and documented that the applicant demonstrates independence in her/his research. The committee shall assess both generally recognised bibliometric indicators and accepted scientific standards of selected works. Particular emphasis shall be placed on both the quality and scope of the applicant's scientific production during the past six years (excluding statutory leaves of absence). This production must substantiate continued activity at professor level. However, it should also be possible to refer to developments over time and previous work of particularly high quality to substantiate a more long-term career development towards qualification for appointment as a professor. The most important element of the assessment of scientific merits will be peerreviewed international scientific publications. This could be journal articles, books and book chapters, and in some cases other types of publications. Normally, no significant weight will be attached to scientific work that has not undergone a peer review. In addition to publications, any patents, innovation work, and documented research work forming the basis for processes in business and industry or public administration shall also be given weight. The emphasis on academic competencies vs patents, innovation, etc., will naturally vary between disciplines, but should be based on subject-specific international standards for what constitutes expertise in the field.

4.1.2 The Research Process

Important parts of the research process include:

Scientific leadership experience: The applicant should demonstrate strong leadership skills, in particular the ability to provide high-quality research leadership. Emphasis is placed on the ability to initiate and lead research activity. General experience in initiating and managing research projects, building and leading research groups, work to improve gender balance and equality perspectives in research, and academic-administrative work are also relevant.

External funding: The applicant should be able to document a good ability to attract external funding for research projects (this requirement must be seen in light of the availability of external funding within the field). Participation in joint applications shall be credited, but the applicant's role in such applications must be described.

Networks and collaboration: The applicant should be able to demonstrate good ability to build networks and collaborate both nationally and internationally. This may include participation in consortia and formal networks anchored in institutions, and it shall count positively if such collaborations encompass both research and education.

International profile: The applicant should document activity on the international research arena, and that their research is of importance to the discipline internationally. This may, among other things, be reflected in international research collaboration, participation and assignments in international scientific forums, work as a reviewer for journals and institutions, and citations. Activity in the international arena for educational competence, emphasis on quality, contributions to "Open Science," and an international engagement significant for society, science, and academia are desirable.

4.1.3 Educational competence

According to § 3-8 of the Universities and Colleges Regulation, universities and university colleges shall establish more specific requirements for educational competence.

"For [...] professor, a minimum of formal training, quality development in one's own teaching, supervision, and substantial contributions to the development of educational quality shall be required. Educational competence means pedagogical or didactic competence to promote learning, including knowledge and skills in the development and implementation of teaching and supervision at university and college level."

Requirements to qualify for promotion to professor in the MNT fields:

- Achievement of basic university pedagogical competence as defined by the applicant's institution at the time of employment.
- Additional requirements as described in these guidelines.

Basic university pedagogical competence will normally include the development of the following skills:

- Fundamental skills in planning, implementing, evaluating, and developing teaching and supervision, including digital skills.
- The ability to reflect on one's own role and to discuss and justify choices in planning, implementation, and development of teaching and supervision.
- The ability to anchor one's university pedagogical competence in the SoTL³ criteria:
 - focus on student learning
 - clear development over time
 - a scholarly approach
 - a collegial attitude and practice

Additional requirements for promotion to professor:

Extensive and broad experience with academic supervision at higher levels. Normally, the applicant should have been active and de facto supervisor for at least two PhD candidates through to completion of the doctoral degree, but exceptions may be granted in cases of extensive academic follow-up/supervision at postdoctoral or master's level. Supervision at PhD level may also be included in the assessment basis even if the candidate has not yet completed the degree. If the applicant claims

³ Scholarship of Teaching and Learning https://issotl.com/grand-challenges-for-sotl/

to have been a de facto supervisor without being the formal main supervisor, this must be documented.

- A broad range of skills in planning, implementing, and evaluating teaching.
- A broad range of skills in systematic development work related to teaching and supervision.
- Contributions, leadership, and collaboration in one's academic environment related to work on educational quality.

For staff at university museums, museum-related competence may replace the additional educational requirements for professors at both appointment and promotion.

The applicant's educational qualifications must be thoroughly documented through a dedicated description of the applicant's pedagogical development after attaining basic competence and must be assessed by the committee as fulfilling the regulatory requirements as specified in these guidelines for the MNT fields nationally.

4.1.4 Societal engagement, dissemination, and innovation

Applicants should have experience in communicating scientific issues and results to audiences outside academia. Relevant competence may include dissemination to the general public through popular science activities (publications, lectures, blogs, social media, etc.) and dissemination through mass media (TV, radio, newspapers, journals), as well as dissemination to users in public administration and industry. Patents, innovation work, and documented research forming the basis for processes in business and public administration shall be credited positively as described in 4.1.1.

4.1.5 Managerial positions and professional appointments

Applicants should have experience in administrative or strategic academic work in academia, for example participation in and/or leadership of units, boards, and committees at universities or other knowledge institutions.

4.2 Delimination of subject

According to § 3-13 of the Universities and Colleges Regulation, applicants may only be evaluated "within the field in which the applicant is employed." This does not imply that the applicants should only be assessed *in relation to the topic mentioned in the original job description*. Such a strict interpretation could contribute to an unfortunate conservation of subject areas and hamper academic development. On the contrary, a documented ability to change course within one's own discipline/field should, as mentioned above, be considered a positive factor in cases where such a change is academically relevant. If the applicant's institution deems the applicant's qualification profile to be within the academic profile of the academic unit where the applicant is employed in relation to a possible promotion, this should be sufficient for the applicant to be considered on his/her own terms.