

## **Evaluation criteria for career advancements at MP**

Several aspects must be addressed to to have a flexible assessment of candidates, both with hiring of new employees and promotion to new positions.

The assessment criteria shall apply both for internal and external candidates in an identical manner. An assessment of the qualifications needs to take into consideration a number of independent assessment dimensions. On the other hand, no one can perform on top on all criteria. A candidate needs to be very good in at least a couple of the following dimensions. High priority should, however, be given to research qualifications and teaching experiences.

It is important to stress that fulfilment of the criteria described below does not automatically guarantee advancement from postdoc or assistant professor to associate professor level. Positions at permanent levels are part of long-term combined research and educational strategies at the department.

The choice of a suitable candidate for a given position needs to accommodate the needs and priorities of the Department, Section, but also Research Group at the given point in time.

The points below describe important points in the assessment.

### **General description of assessment criteria**

#### **1. Research qualifications**

- Extent of research achievements
  - Number of publications and first authorship publications
  - Quality and impact factor of journals and conferences
  - Citations (such as h-index or absolute number)
- Trend in publications

#### **2. Teaching**

- Relevant teaching experience
- Special initiatives in the area of teaching
- Quality of teaching
- Pedagogical education
- Involvement in student projects
- Involvement in study administration
- Experience with problem based learning

#### **3. Research collaboration with industry and society.**

- Involvement in research projects with industrial partners
- Involvement in student projects in collaboration with industry
- Dissemination towards Industry and Society

- Participation in networks

The assessment should take into consideration the network of the candidate within industry at a local or international level and the ability to utilize the network to create research grants.

#### **4. Research Project Involvement**

- Experience with research applications
- Involvement in research projects with other university partners.
- Experience with management and implementation of research projects
- Patents and innovation

#### **5. International Experience**

- Research stays at international research environments
- International research collaborations

#### **6. Contribution to Organizational Development**

- Participation in formal coordination committees
- Initiating organizational development

## **Criteria for the position as Assistant Professor at the Department of Materials and Production**

A suitable candidate for an Assistant Professor position should have a profile, which makes him/her likely to embark on a successful career at the department. He/she should hold a doctoral degree that is relevant to the Department's research focus and strategic direction. Moreover, the candidate should be able to present a promising research strategy for the coming years and show the potential to publish research output in international peer reviewed journals (e.g. according to the WOS list or the Danish BFI list). It is considered an advantage to have some prior experience with teaching/supervision.

The criteria described below are examples of activities and performance, which increase the likelihood of 1) being assessed qualified by an assessment committee, and 2) being considered relevant for the position:

### **Research qualifications**

- Extent of research achievements
  - Number of publications and first authorship publications
  - Quality and impact factor of journals and conferences
  - Papers in progress with a reputable journal
  - Co-authorship with international researchers
  - Reviewer activities for journals and conferences
  - Presentations at reputable conferences, seminars and workshops etc.
- Trend in publications

### **Teaching**

- Relevant teaching experience
- Involvement in student projects
- Experience with problem based learning

### **Research collaboration with industry, society and academia.**

- Involvement in research projects with industrial partners
- Involvement in research projects with other university partners
- Involvement in student projects in collaboration with industry
- Dissemination towards Industry and Society
- Participation in networks

### **Research Project Involvement**

- Experience with external funding, e.g. involvement in preparation of research applications and execution of research projects with colleagues from the research group, or department, or externals to the university

### **International Experience**

- Research stays at international research environments
- Participation in International research communities

After employment of an Assistant Professor, he/she together with Research Group Coordinator and Head of Section need to prepare a development plan for what to achieve in order to qualify for a career after completion of the Assistant Professorship. That development plan will assign priorities to the aforementioned assessment dimensions, in order to encourage a more complete and rounded profile. This development plan will be followed up during the subsequent MUS talks.

## **Criteria for the position as Associate Professor at the Department of Materials and Production**

Promotion to Associate Professor signals the maturity of an Assistant Professor into becoming a well-rounded academic. In order to be considered for promotion to the position of Associate Professor at the department, candidates are therefore required to have established their own research profile, to be active teachers, and to be value-adding members of their research community.

The criteria described below are examples of activities and performance that increase the likelihood of 1) being assessed qualified by an assessment committee, and 2) being considered relevant for the position.

### **Research qualifications**

- Extent of research achievements, as evaluated by:
  - Number of publications in journals on the WOS list and the Danish BFI-list
  - Quality and impact factor of journals and conferences
  - Co-authorship with international researchers
  - Research monographs published with leading international publishers
  - Demonstrated research impact, for example measured by WOS, SCOPUS, Google Scholar citations, etc.
  - Reviewer activities for journals and conferences
  - Presentations at reputable conferences, seminars and workshops etc.
  - The organization of conferences, workshops, and conference tracks
  - Participation in research networks
- Trend in publications

### **Teaching**

- Relevant teaching experience
- Involvement in student project
- Experience with PBL
- Good teaching evaluations
- Course responsibility and course development experience
- Completion of pedagogical training, including PBL
- Supervision of Bachelor and Master students

Teaching is an important aspect at any university, so it is expected that an Associate Professor has well-rounded qualifications in teaching and exercises them in practice.

### **Research collaboration with industry, society and academia.**

- Relationships with the surrounding business community that provides access to research and teaching
- Involvement in research projects with industrial partners
- Involvement in research projects with other university partners
- Involvement in student projects in collaboration with industry
- Dissemination towards Industry and Society
- Participation in networks

The assessment should take into consideration the network of the candidate within industry at a local or international level and the ability to utilize the network to create research grants.

### **Research Project Involvement**

- Experience with research application and external funding, e.g. involvement in preparation of research applications and execution of research projects with colleagues from the research group, or department, or externals to the university
- Experience with management and implementation of research projects
- Creation of patents and/or innovation

### **International Experience**

- Research stays at international research environments
- Participation in International research collaboration

It is expected that an Associate Professor should have developed an international network and showed his/her ability to operate within an international context.

### **Contribution to Organizational Development**

- Contributions to departmental activities/responsibilities
- Organization of and presentation at the department's research seminars
- Administrative coordination tasks for the department

### **Criteria for the position as Professor MSO at the Department of Materials and Production**

Experienced Associate Professors with a promising research agenda that is considered pivotal for the department's research strategy can seek promotion for a Professor MSO position. The specific task forming the basis of the position and its relation to the department strategy must be clearly defined.

The criteria described below are examples of activities and performance that increase the likelihood of 1) being assessed qualified by an assessment committee, and 2) being considered relevant for the position.

#### **Research qualifications**

- Extent of research achievements, as evaluated by:
  - Number of publications in journals on the WOS list and the Danish BFI-list
  - Quality and impact factor of journals and conferences
  - Co-authorship with international researchers
  - Research monographs published with leading international publishers
  - Demonstrated research impact, for example measured by WOS, SCOPUS, Google Scholar citations, etc.
  - Editorial board membership in peer-reviewed journals
  - Editorship of books and/or special issues of peer-reviewed journals
  - Reviewer activities for journals and conferences
  - Presentations at reputable conferences, seminars and workshops etc.
  - The organization of conferences, workshops, and conference tracks
  - Participation in research networks
  - Facilitation of a research environment

#### **Teaching**

- Relevant teaching experience
- Administration and management of study programs
- New course development
- Excellent teaching evaluations
- Supervision of Bachelor, Master and PhD students
- Teaching awards or other recognitions

Teaching is an important aspect at any university, so it is expected that a Professor MSO has well-rounded qualifications in teaching and exercises them in practice.

#### **Research collaboration with industry and society.**

- Relationships with the surrounding business community that provides access to research and teaching
- Involvement in research projects with industrial partners
- Involvement in student projects in collaboration with industry
- Dissemination towards Industry and Society
- Participation in networks

The assessment should take into consideration the network of the candidate within industry at a local or international level and the ability to utilize the network to create research grants.

**Research Project Involvement**

- Experience with research application and external funding, e.g. through design and coordination of research applications and execution of research projects with colleagues from the research group, or department, or externals to the university
- Experience with management and implementation of research projects
- Creation of patents and/or innovation
- Ability to attract external funding

**International Experience**

- Research stays at international research environments
- Participation in International research collaboration
- Organization of international conferences etc.
- Recognized by international research communities through e.g. participation in PhD assessment committee work

It is expected that a Professor MSO should have developed an international network and showed his/her ability to operate within an international context.

**Contribution to Organizational Development**

- Contributions to departmental activities/responsibilities
- Organization of and presentation at the department's research seminars
- Administrative coordination tasks for the department
- Participation in and leadership of research groups
- Administrative responsibilities for the department or university
- Activities to promote and support the department or colleagues at the department
- Dissemination to society in various forms, e.g. statements to the media, presentations and shorter articles
- Participation in regulatory bodies, research councils, commissions etc.



## **Criteria for the position as Full Professor at the Department of Materials and Production**

To be promoted to the position of full professor, the candidate must have achieved an international reputation for excellence in research. Moreover, it is expected that the candidate has an ongoing research agenda on the current level of excellence and impact. The candidate should also demonstrate research leadership by establishing the basis for other researcher's activities at the department and by engaging them in various forms (e.g. at seminars and workshops). Furthermore, the candidate must contribute to the achievement of the departments overall strategy.

High-quality teaching at all levels is necessary to obtain the position of Full Professor, which includes the transfer of the current body of knowledge and the effective communication with students reflected in superior teaching evaluations. Moreover, dissemination of current research is of high importance in supporting the profile of the department.

The criteria described below are examples of activities and performance that increase the likelihood of 1) being assessed qualified by an assessment committee, and 2) simultaneously being considered relevant for the position.

### **Research qualifications**

- Extent of research achievements, as evaluated by:
  - Number of publications and first authorship publications in journals on the WOS list and the Danish BFI-list
  - Quality and impact factor of journals and conferences
  - Co-authorship with international researchers
  - Research monographs published with leading international publishers
  - Demonstrated research impact, for example measured by WOS, SCOPUS, Google Scholar citations, etc.
  - Editorial board membership in peer-reviewed journals
  - Editorship of books and/or special issues of peer-reviewed journals
  - Reviewer activities for journals and conferences
  - Presentations at reputable conferences, seminars and workshops etc.
  - The organization of conferences, workshops, and conference tracks
  - Participation in research networks
  - Facilitation of a research environment

### **Teaching**

- Relevant teaching experience
- Administration and management of study programs
- New course development
- Excellent teaching evaluations
- Supervision of Bachelor, Master and PhD students
- Teaching awards or other recognitions

Teaching is an important aspect at any university, so it is expected that a Full MSO has excellent qualifications in teaching and exercises them in practice.

### **Research collaboration with industry, society and academia.**

- Relationships with the surrounding business and political community that provides access to research and teaching
- Leading research projects with industrial partners
- Involvement in research projects with other university partners
- Involvement in student projects in collaboration with industry
- Dissemination towards Industry and Society
- Participation in industrial networks

The assessment should take into consideration the network of the candidate within industry at a local or international level and the ability to utilize the network to create research grants.

### **Research Project Involvement**

- Highly experienced with research application and external funding, e.g. through design and coordination of research applications and execution of research projects with colleagues from the research group, or department, or externals to the university
- Highly experienced with management and implementation of research projects
- Creation of patents and/or innovation
- Ability to attract external funding

### **International Experience**

- Research stays at international research environments
- Participation in International research collaboration
- Organization of international conferences etc.
- Recognized by international research communities through e.g. participation in PhD assessment committee work

It is expected that a Full Professor should have developed an international network and showed his/her ability to operate within an international context.

### **Contribution to Organizational Development**

- Contributions to departmental activities/responsibilities
- Organization of and presentation at the department's research seminars
- Administrative coordination tasks for the department
- Participation in and leadership of research groups
- Administrative responsibilities for the department or university
- Activities to promote and support the department or colleagues at the department
- Dissemination to society in various forms, e.g. statements to the media, presentations and shorter articles
- Participation in regulatory bodies, research councils, commissions etc.