

MIE Departmental Statement

Concerning Criteria for Tenure and Promotion

This is the departmental statement concerning criteria for tenure and promotion as required by section 7.12 of the Tenure Regulations section of the Academic Personnel Policies and Procedures Manual.

I. Introductory Statement

This document describes with more specificity the indices and standards which will be used to evaluate whether candidates meet the general criteria in Section 7.11 of the Regulations. For a complete perspective, the reader is advised to review Sections 7.11 and 7.12 in their entirety.

II. Departmental Vision & Mission Statement

Vision

The UMD Department of Mechanical and Industrial Engineering (MIE) will be internationally recognized as the premier engineering department in the Great Lakes Region for its high quality undergraduate education, applied masters' level programs in Environmental Health and Safety and Engineering Management, integrated outreach activities in regional economic development, international partnerships, and applied research; thus enabling the growth of our students, faculty, alumni, industry, and economy.

(Adopted Fall 1998; updated September 2002; revised and approved 3 March 2004)

Mission-BSIE

The mission of the Bachelor of Science in Industrial Engineering program is to deliver a hands-on, laboratory-intensive undergraduate education to provide students with the tools and skills to excel in the profession, as they pursue life-long learning and make positive contributions to society. With an emphasis on integrated systems and a strategic partnership with Luleå University of Technology in Sweden, the BSIE program will offer unique opportunities for study abroad, undergraduate research, and technical electives to develop an enhanced global perspective.

(Drafted 8 November 2001; revised and approved 5 March)

Educational Objectives – BSIE

The educational objectives of the Bachelor of Science in Industrial Engineering program are to produce graduates who can: 1. Solve industrial engineering problems by applying contemporary engineering tools to propose and implement effective solutions. 2. Design, develop, implement and improve integrated systems that include people, materials, information, equipment, and energy. 3. Contribute as informed, ethical, and responsible members of the engineering profession and society as a whole. 4. Continue lifelong professional development throughout their career. 5. Collaborate and communicate effectively with others as a member or leader of an engineering or multidisciplinary team in an international setting.

(Drafted 8 October 2003; revised and approved 3 March 2004)

Mission-BSME

The mission of the Bachelor of Science in Mechanical Engineering program is to deliver a laboratory-intensive undergraduate mechanical engineering education to provide students with the tools and skills to excel in the engineering profession, as they pursue life-long learning and make positive contributions to society. The student learning experience will offer unique opportunities for study abroad, undergraduate research, and electives outside of mechanical engineering to develop an enhanced global perspective.

(Drafted 8 October 2003; revised and approved 3 March 2004)

Mechanical Engineering Educational Objectives

The BSME program will produce mechanical engineering graduates who are able to:

1. Solve mechanical engineering problems by applying contemporary engineering tools to propose and implement effective solutions.
2. Design, develop, implement and improve thermal and mechanical systems.
3. Contribute as informed, ethical, and responsible members of the engineering profession and society as a whole.
4. Continue lifelong professional development throughout their career.
5. Collaborate and communicate effectively with others as a member or leader of an engineering or multidisciplinary team in an international setting.

Mission-MSEM

The mission of the Engineering Management Program at the University of Minnesota is to provide tools for practicing engineers to more effectively manage technology, people, and information in their careers to ensure economic growth, competitiveness, ethical decision-making, and environmentally responsible behavior.

(Drafted 8 November 2001)

Mission-MEHS

The mission of the Master of Environmental Health and Safety Program at the University of Minnesota Duluth is to provide students from all professional backgrounds with a deep, hands-on understanding of construction safety, industrial hygiene, ergonomics, traffic safety, environmental health, public safety, fire protection, loss control, and public policy.

(Drafted 8 November 2001)

III. Criteria for Tenure

In our department we essentially use the same criteria for Tenure as for further promotions. Exceptions will be noted*

The College does not arbitrarily define the degree of importance which should be attached to each of the different criteria for tenure. Ideally, a candidate should demonstrate some distinction in all three areas which are stressed in this statement—teaching, research, and service. Generally, a candidate lacking distinction in two of these areas would not be considered a strong prospect for tenure. In all cases, however, each criterion will be considered.

A. Teaching

In general, the Department of Mechanical and Industrial Engineering expects teaching excellence. Excellence is measured by using classroom evaluation forms, laboratory development, development and/or maintenance of hands on engineering experiences, and other assessments of quality improvement. An additional measure is based on feedback from graduates and working professionals.

Several of the following statements should indicate the candidate's adequacy in meeting this most important of criteria.

1. Subject matter and the means to obtain and maintain core competency in the field of study.
2. Developed well-maintained laboratories and laboratory activities or well-designed classroom activities that facilitate the educational process.
3. The subsequent performances of graduates indicative of excellence in teaching of the subject matter.
4. Active in improving the standard of teaching throughout the college and campus.
5. Made research opportunities available to students or encouraged student participation in their research efforts.
6. Won any awards for teaching excellence.

B. Academic Efforts/Research

The MIE department expects that its faculty maintain an active program of academic enrichment. This can be measured by publications in referred academic journals, conference proceedings, and technical reports related to industrial projects undertaken by the faculty. Activities such as editing and reviewing of articles for established journals and presses as well as translating work for publication are also qualifying efforts here. Software development, educational videotapes, educational aids or systems, and other innovations are also considered scholarly productivity.

Faculty are encouraged to develop consulting agreements with local and regional industries that require the expertise that they can provide. It is expected that, on occasion, projects will lead to articles that can be published based on these efforts. To further encourage this worthwhile effort, the department places very high value on outreach efforts with local industry that lead to "repeat business" in the form of continuing projects commissioned, and funded, by the company or organization. Collaborative work with other departments and universities is encouraged.

The Department also encourages its faculty to seek research funding to conduct theoretical/basic or applied studies in the faculty's field of expertise. External Funding from sources including governmental agency at the regional and national level are very important in meeting this desired goal. The department places high value on the development of proposals to obtain extramural grants to support their research efforts.

C. Service

An ideal faculty tenure candidate should serve the department committee structure and serve on college level committees as appropriate. This candidate should also serve professional societies in the role of committee member either locally, regionally, or nationally and as a technical reviewer for conference proceedings and journal articles.

For promotion to Full Professor, the candidate should serve, in addition to the above, on campus committees and in some leadership roles with departmental and college committees. The candidate is expected to actively participate in national and international professional organizations or societies. This last requirement is intended to provide an external measure of the candidate's expertise in their field of specialty.

IV. Promotion

A. To Assistant Professor

A faculty member lacking a doctoral degree initially will be appointed at the instructor rank. However, upon completion of the Ph.D. the rank of assistant professor can be conferred. Except in rare cases, such promotion does not involve tenure.

B. To Associate Professor

Except in rare cases promotion to the associate professor rank is associated with a decision concerning tenure. If the tenure criteria as discussed earlier in this document are met, promotion to associate professor is granted. Assessment of the candidate will include evaluations by at least two outside experts.

C. To Professor

Beyond the research and teaching work required for promotion to the rank of Associate Professor, continued and sustained efforts in these areas must be demonstrated for successful promotion to the rank of Professor. Such promotion shall be based on significant research and learned work accomplishment supported by excellence in teaching. At least three objective third party experts, in the candidate's field and outside UMD, should be among those who assess the candidate's distinction.

V. Procedures

The Department complies with the procedures for promotion and conferral of indefinite tenure set forth in Section 201.000 of the collective bargaining agreement between the Regents of the University of Minnesota and the University Education Association.

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