

Department of Biomedical Engineering Mentoring Plan

Introduction

Mentoring of untenured faculty in the Department of Biomedical Engineering is a multi-faceted effort, including contributions from the Department Chair, the Promotion, Tenure & Retention Committee, and the individual mentors. The specifics of the mentoring plan will be tailored to meet the needs and demands of the particular new faculty member. Our plan is loosely based upon the University of Michigan document: Giving and Getting Career Advice: A Guide for Junior and Senior Faculty; Academic Year 2009–10.

Overall Goal

Mentoring and career guidance, are important aspects of successful career development of newly appointed faculty members. The goal of the mentoring program of the Department of Biomedical Engineering is to have senior, experienced faculty members provide advice, guidance, and assistance to junior and senior new faculty to help them develop in a professionally successful manner.

Examples of Issues to be Considered in the Mentoring Process

A newly appointed faculty member often needs to learn the culture of their new department and institution. More experienced members of the Department of Biomedical Engineering will help to provide this advice, but it is recognized that the decision-making must be done by the new faculty member him/her self. Example areas of advice that may be included in this mentoring program are listed as:

1. Providing information about promotion and tenure processes
2. Describing and illustrating departmental, research center, college, and university culture
3. Providing constructive and supportive feedback on specific work or on career progress
4. Providing encouragement, support and listening to concerns of the new faculty member
5. Helping to foster important connections and visibility within and outside of the department and university
6. Research issues including
 - a. Assisting in locating external funding sources and opportunities
 - b. Identifying resources and opportunities within the department and institution
 - c. Navigating the proposal preparation and approval process
 - d. Internal review and advice regarding proposals
 - e. Publishing expectations
 - f. Expectations of external funding
7. Teaching issues including
 - a. Course assignments by chair
 - b. Course load
 - c. Scheduling of courses

- d. Evaluation of teaching
 - e. Expectation of students
 - f. Grading policy
8. Obtaining and supporting graduate students
 9. Important individuals to know and relationships to cultivate
 10. Understanding practical politics
 11. Providing service to the department, college, university, and profession

Choice of Mentor

Many of the mentoring activities will be accomplished informally through collegial interactions between the new and experienced faculty. Nevertheless it will be important for each new faculty member to identify a specific experienced individual who can serve as the "official mentor". This individual will meet regularly with the new faculty member, especially during those weeks immediately following the new faculty member's arrival, and help the new faculty member navigate the department and institution. It is recognized that not every faculty member will be a good mentor or be willing to serve in this role, and that certain individuals might prefer one type of mentor over another. For this reason new faculty will be given the opportunity to meet and get to know potential mentors and then be asked to make a choice regarding whom they would like to have as their primary mentor. Ideally, this choice should be made by mutual agreement. The approach is likely to be somewhat different for junior and senior new faculty.

Incoming Junior Faculty

Each newly hired junior faculty member will be informed of the mentoring program upon acceptance of their faculty appointment. The department chair will serve as a "transitional" mentor until a formal mentor is chosen. They will be given a list of senior faculty in the department who are willing to serve as mentors along with a description of their interests and activities. This will give them the opportunity to become familiar with possible mentors before arriving on campus. Upon arrival each new faculty member will have the opportunity to meet with potential mentors, and they will be asked to choose a mentor during their first two weeks on campus. This mentor may or may not be the department chair. Regular meetings will then be scheduled between mentor and mentee at frequent intervals during the new faculty member's first months on campus and then less frequently through the pre-tenure years. Such meetings can be brief or more extensive depending upon the needs of the new faculty member and time constraints. Once each semester the new faculty member and his/her mentor will meet jointly with the department chair to report on progress and issues that require the chair's attention.

Incoming Senior Faculty

Newly appointed senior faculty, especially those who have had previous university faculty experience, will follow a similar but abbreviated path to that described for junior faculty. They will be encouraged to engage with another senior faculty member who can orient them to the

department and institution, but probably will not require as much advice regarding research and teaching activities. It is, therefore, expected that fewer meetings will be necessary than for the junior faculty. It is important for the new senior faculty to become experienced faculty, so that they can serve as mentors themselves. The department chair may or may not serve as the mentor, but will serve as a “transitional” mentor until the newly hired senior member chooses a formal mentor.

Role of the TP&R Committee

The department Tenure, Promotion & Retention (TP&R) committee will review each un-tenured faculty member yearly. Every other year, the TP&R committee will perform a more substantial major review (as opposed to an interim review) of each faculty member, the recommendations of which will be passed to the College level for further assessment. Upon completion of the major and interim reviews, the TP&R committee will fill out an evaluation form that lists the strengths and suggested areas that need improvement in terms of scholarly achievement, teaching, and university/professional service. A copy of this form will be provided to the faculty member and to the department chair. The department chair will discuss this form at one of the bi-yearly meetings with the un-tenured faculty member.

Role of the Department Chair

In addition to serving as the “transitional” mentor for all new faculty members, and when appropriate, serving as the official mentor for the un-tenured faculty, the chair will also review the professional development and performance of each un-tenured faculty member yearly. The chair will complete an assessment form identical to that of the TP&R committee (above). Following the yearly review by both the TP&R committee and the departmental chair, the un-tenured faculty will meet privately with the department chair and the recommendations (and strengths) noted by both reviews will be discussed. The department chair will provide further guidance on needed improvement, as well as pointing out particular strengths of the un-tenured faculty member. A professional development plan for the up-coming year will be discussed and loosely developed at this meeting as well.

Assessment

The mentoring program of the Department of Biomedical Engineering must be effective if it is to have any value to the new faculty and the department in general. For this reason the chair will meet individually with each new faculty member at the end of their first month of employment and at the end of each semester of their first year to determine from them how the mentoring is proceeding and to get suggestions as to how the process can be improved. The chair will meet with the faculty bi-annually thereafter, even post-tenure. The information gathered on how the process may be improved upon will be documented and shared with the entire faculty. If any corrective action is required for a specific case, the chair will make sure that this is accomplished.

Chemical Engineering Faculty Mentoring Program

The faculty mentoring program in the Chemical Engineering Department is tailored to meet the needs and demands of the individual. Each pre-tenured faculty has his/her own research field, interests, and particular set of strengths/weaknesses, and so a “one size fits all” mentoring program is not as effective as one that is specifically matched to the person.

Mentor Selection for New Faculty: To begin the process for a new hire, the department chair appoints a “transitional mentor” who will contact the new hire during the summer before the hire arrives to provide welcome and orientation documents and to oversee that the office staff send important information about campus contact persons, curriculum, syllabi, etc. During the first semester, until a permanent mentoring arrangement is finalized, the transitional mentor checks in with new hires and becomes the “go-to” person for issues regarding adjustment to the department.

By the middle of the first semester, one or more senior faculty mentors are established for a new faculty member. The department chair and the new colleague collaboratively agree on the appropriate colleagues to serve as mentors. Commonly, there will be one mentor for research and another for teaching. The department chair gives guidance and expectations on department, university, and professional service.

Mentorship Process: The mentors and department chair meet with all pre-tenured faculty, typically twice per semester, to discuss their needs, work out how these can be fulfilled, and plan how the faculty member’s activities can be made most complementary to the department as a whole. In these meetings, the mentees also receive counseling and support on any personal and profession development issues that may arise. The individual research and teaching mentors interact with the mentee more frequently to address specific issues such as help on a proposal submission or answering a teaching question. Specifics of these interactions are provided in later sections of this document.

The job of the mentors and department chair is to assist the pre-tenured faculty member in preparing for teaching, research, and service activities, and to ensure that the faculty member is well-prepared for ultimate tenure review. The department’s Promotion and Tenure Committee meets annually with each pre-tenured faculty member to critically evaluate the Form F and assess progress toward tenure.

Monitoring of mentor-mentee relationships is done by the department’s Executive Committee at least once per year. Recommendations, if any, on reassignment of mentors or changes to the mentoring process are passed along to the department chair and the Provost’s office.

Our goal in the mentoring process is to make certain that our pre-tenured faculty succeed. Failure is not an option.

Mentorship of Teaching: Instead of waiting to receive teaching evaluation reports at the end of the semester, we make use of the “Survey Monkey” package to provide continuous feedback to the faculty mentee. Students in the faculty member’s classes are encouraged to give feedback so that the faculty member can see what is working, and what is not, in nearly real time, while there is still an opportunity to make adjustments. These actions can then be related to the end-of-semester evaluation results to determine how much progress the faculty member has made in teaching effectiveness. In addition, the senior faculty teaching mentor works with each pre-tenured faculty member to provide suggestions for improving the quality of instruction.

Mentorship of Research: All new faculty are strongly encouraged to begin submitting research proposals promptly, and the department chair makes sure that there is adequate time and support to submit strong, innovative proposals. We particularly make sure that the pre-tenured faculty member’s teaching and service committee requirements are not so onerous that there is no time for preparing well-thought-out research proposals. The university and department make every effort to provide adequate cost-share commitments for proposals when such commitments are required by the potential research sponsor. Within the department, we also pay a great deal of attention to the NSF CAREER awards, as these 5-year awards are the most significant research grants provided by NSF for pre-tenured faculty. Each pre-tenured faculty member’s research mentor is available for critically reviewing proposals, which provides valuable feedback to make the proposals as strong as possible. In a recent CAREER submission from our department, the research mentor’s review resulted in the proposal being almost completely rewritten, and made much stronger in the process.

The department has a long-standing policy of inviting external researchers to give seminars. We encourage junior faculty to pick some of these speakers, based on their interests. This assists our junior faculty in finding mentors outside of Michigan Tech. We also encourage our junior faculty to submit proposals for funding in collaboration with their external mentors, which gives them access to facilities and expertise beyond what is available at Michigan Tech.

Service: The department recognizes that service is an important part of a pre-tenured faculty member’s professional development. To ensure that this service is diverse, the pre-tenured faculty are encouraged by the department chair to participate in university-wide service activities and committees, with less focus on service inside the department. This helps the pre-tenured faculty to establish a broader network of potential interdisciplinary collaborators by giving them an opportunity to work with colleagues from other departments on service activities. Pre-tenured faculty are also encouraged by the department chair to become involved in both the national and regional activities of professional societies, which provides additional contacts for external mentors and collaboration possibilities.

Department of Civil and Environmental Engineering Mentoring Program 29 October 2010

There are significant benefits to be gained by active mentoring where the experience of seasoned faculty is used to assist the successful integration of new colleagues into the Department and University. Some of the best mentoring is done informally through casual interaction and the development of collegial relationships. This mentoring may occur in social settings or in formal research and/or teaching collaborations. Unstructured relationships can often be very fruitful. In order to be truly effective, mentoring must be integrated into the Department culture and be part of the regular interactions among the faculty. Mentoring is a process, not an event.

However, spontaneous activity of this sort cannot be taken for granted and cannot be expected for every faculty member. Some new faculty may find it difficult to initiate contacts or might not find colleagues who share academic interests among the Department faculty. Therefore, some formal, structured mentoring is often necessary to help guide new faculty toward success.

Mentoring of untenured faculty in the Department of Civil and Environmental Engineering is a three-pronged effort, including the Department Chair; Promotion, Tenure, and Policy Committee; and individual mentors.

Department Chair: Although the Department Chair is not typically an individual mentor for a faculty member, the Chair should work with the faculty member in much the same way as an individual mentor would. The Chair will meet with each untenured faculty member at least twice per year. The meetings will need to be somewhat summative, but should contain a significant amount of formative discussion. Ideally, all untenured faculty members should be comfortable enough to approach the Chair at times other than the minimum two meetings per year. It is also incumbent on the Chair to informally discuss mentoring issues during some informal meetings with the faculty member initiated by the Chair.

Promotion, Tenure, and Policy Committee: The Promotion, Tenure, and Policy (PT&P) Committee will perform a summative evaluation of each untenured faculty member once each year. One member of the Committee will be assigned to give the written evaluation to the faculty member and discuss, in a formative manner, the implications of that evaluation. The Committee member assigned to the untenured faculty member should initiate at least one additional meeting with the faculty member to discuss his/her progress toward tenure. It is anticipated that the untenured faculty member also will be able to learn about the workings and expectations of the PT&P Committee through these meetings.

Individual Mentor(s): A newly hired faculty member will, within the first year of service, identify one member of the faculty with whom they will meet informally to discuss the nature of Department, College, and University life. The faculty member may consult with the Chair when identifying a faculty mentor. The new hire will notify the Chair of the name of that faculty member, and the Chair will confirm his or her commitment to serve in this role. Identification of such a faculty member does not limit

the new hire in developing relationships with other members of the faculty for similar purposes.

Expectations of Mentors: The mentor and mentee should have regular interactions, but at minimum should meet to review syllabi and discuss course objectives. The mentor should also review examinations or assignments with the mentee. In addition, the mentor should invite the new faculty to visit one or more classes as an example of process. We expect the mentor (or mentors) to also work with new faculty on their research agendas. Ideally we should match people who have similar or at least complementary research areas, but it may be necessary to mix and match mentors during any given year. There is likely to be some benefit to group mentoring for research, permitting discussion of strategies and successful approaches to topics such as proposal writing, grading, time management, and academic problem-solving in the MTU environment.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING MENTORING PLAN – March 2010

For the purposes of this plan, the term *mentee* shall refer to an untenured Assistant Professor in the ECE Department, in the first *four* years of his/her appointment, or an untenured Associate Professor in the ECE Department, in first *two* years of his/her appointment.

1. Department Chair. The support of the Department Chair is critical for successful career development for young faculty. In addition to annual one-on-one meetings that the Chair conducts with all faculty, the Chair shall meet once per semester with the mentee, possibly in a social setting such as lunch, to revisit the expectations of the Department, review the progress of the mentee, and address any questions or concerns that the mentee may have. The Chair or an appointed representative from the departmental Promotion and Tenure Committee will attend one lecture class taught by the mentee, per semester, and provide constructive feedback. The Chair or an appointed representative from the departmental Research Committee will review and comment on selected research proposals written by the mentee.

2. Faculty Research Mentor. A member of the department faculty whose research area is close to that of the mentee will be assigned as a faculty research mentor. The role of the faculty research mentor is to assist the mentee in the development of his or her research career. Specific responsibilities include: 1) provide guidance on promising research areas, 2) assist the mentee in making professional contacts that could further his/her research program, 3) read research proposals written by the mentee and provide constructive feedback, 4) provide opportunities for collaborative research, if appropriate, 5) include the mentee as a co-PI on grant proposals written by the mentor, if appropriate, and 6) meet with the mentee in a small social engagement, such as lunch or dinner, once per semester. The mentor shall provide a short (one page or less) report to the Department Chair on mentoring activity at the end of each academic year.

3. Faculty Teaching and Service Mentor. A member of the department faculty whose research area is *not* close to that of the mentee will be assigned as a teaching and service mentor. The role of the teaching and service mentor will be offer advice on teaching skills and on developing a reputation as a good citizen of the Department and the University. Special attention shall be placed on helping the mentee develop awareness of diversity and cultural issues at Michigan Tech. Specific responsibilities include: 1) attend one lecture class taught by the mentee, per semester, and provide constructive feedback, 2) act as an advocate for the mentee in the assignment of teaching and service loads, and 3) meet with the mentee in a small social engagement, such as lunch or dinner, once per semester. The mentor shall provide a short (one page or less) report to the Department Chair on mentoring activity at the end of each academic year.

4. Resources. The faculty research mentor and the faculty teaching and service mentor shall each have an amount of \$500 added to their Institutional Research and Development (IRAD) or Professional Development accounts. Where possible, these funds should be used to support the mentoring relationship. The funds would be provided by the Department IRAD account or other sources as determined by the Department Chair.

Faculty Mentoring Plan for the Department of Engineering Fundamentals

Revised Version
November 2010

Faculty Mentoring Plan for the Department of Engineering Fundamentals (EF)

Revised version: November 2010

EF Mentoring Plan for new Faculty:

Hiring a new faculty member usually brings many good things to an academic unit and its incumbent faculty. For the new hire, however, entering an established team of faculty who have worked together for several years and finding a niche within that faculty are not necessarily easy things to do, especially if the position announcement for the hire does not pre-define a niche. In order to increase the odds of retaining the new hire, it is important to provide evident means to facilitate a smooth transition for that person into his/her new working environment. For most people, the critical aspects for satisfaction with their employment are a sense of belonging to the organization, a sense that they are making a real contribution to the mission of the organization, and a sense that they are appreciated by the organization – appreciated beyond what a negotiated salary may indicate. Ideally then, an effective faculty mentoring plan would be one that addresses these key aspects, does so in evident ways, and does so in a timely manner before any true dissatisfaction takes hold. The EF plan is based on this thinking and comprises three component parts or efforts, which are described below.

Part 1: Assign an incumbent faculty to the new hire. The assigned faculty is to first serve as a go-to person as soon as the new hire arrives and then, pending on a positively developing relationship, to transition (near the end of the first year) to serve as a formal mentor.

The first piece of the EF mentoring plan is to assign an incumbent faculty as a go-to person for the new hire. This provides a clear path for the new hire to access peer, departmental, and institute knowledge without feeling that they are imposing. If a good match has been made between the incumbent and the new faculty, this will establish a strong first working relationship. The new hire will have someone to ask how things are done, who to see for what, what standard resources are available, and what peers will expect of the new faculty. The incumbent faculty can provide mentoring and insight at a peer level – and that is an important aspect of this part of the plan. Having an office coordinator or staff person fulfill this “go-to” piece is not advisable. It is unwise to risk the new faculty member feeling overly dependent on staff when a peer could be made available to relay the same information and could be able to put the new faculty in a more comfortable position to interact with staff when staff assistance is needed. The benefits of this part of the plan are the development of a sense of belonging to the organization that is accomplished without compromising the new faculty’s dignity or self-confidence (remember, it is not always easy to ask for help), and the development of a sense of contributing that occurs more rapidly as knowledge of the unit’s usual procedures grows. The formal assignment of the go-to person should last as long as the new-hire, the go-to person, and the chair deem it worthwhile (see Part 2). For a new hire who joins the faculty at an entry level, it is expected that the formal assignment should last until the new hire is ready for a first promotion but that the relationship will evolve within the first year to a mentoring connection as the go-to assistance is needed less and less by the new hire. As the mentoring component grows, the incumbent faculty will provide guidance to help the new hire initiate efforts that will be beneficial for promotion. If the mentoring aspects of the assignment are not working, which may occur for many reasons (e.g., differences in personalities, career goals, teaching or research responsibilities/assignments),

the new hire, the incumbent faculty, or both may request a change. Such a request should be directed to the department chair. For a new hire that joins the faculty at a senior-level position, the assignment of a go-to incumbent should be made to facilitate the transfer of local knowledge to the new senior hire. In this latter case, however, the formal assignment should last no longer than one academic year and not transition to a formal mentoring relationship. In all cases, the initial assignment of a go-to person/mentor will be made by the department chair.

Part 2: Provide a reason for the new hire to see the department chair on a regular basis.

The idea here is to give the new hire an assignment or departmental task that is a real part of the departmental workload, and one that will require the new hire to regularly meet with the chair. The reason for the meetings, of course, should not be related to any kind of job performance evaluation, nor should it be designated specifically as a check-in or mentoring meeting – that would defeat the purpose of this part. The base reason for the meeting must be to attend to departmental business, so that the meetings do, in fact, occur, and so that there is a set topic for discussion. Ideally, that topic would allow avenues of discussion that enable the chair to provide insight on his/her vision for the department and how the new hire fits in with that vision, as well as on the chair's philosophy regarding the overall department mission. Curriculum development, a common aspect of a new faculty's duties in most academic units, is a very good venue for this piece of the plan, particularly for a cornerstone course that engages many incumbent faculty (see Part 3). These frequent meetings will give the chair an opportunity to ask how things are going *as an aside and on a very casual basis – without the discomfort of a forced conversation*. They will provide an opportunity for both the chair and the new faculty to assess on a regular basis how the relationship with the go-to person/mentor is going and whether any changes in the assignment are warranted. The chair/new hire interaction can be used to provide a senior mentoring of the new hire or, as a minimum, to allow the new hire to share work challenges early and often and in a private forum. It also gives the new hire an opportunity to get to know the chair and even, perhaps, to get a better understanding of the expectations for promotion. In terms of the critical aspects for the new hire's employment satisfaction, one benefit of this part of the plan is the development of a sense of making a real and substantial contribution to the department's mission – provided the reason to see the chair frequently is embedded in a true departmental need. Another benefit would be the development of a sense of being appreciated that goes beyond what a paycheck can produce. In a time-line, this part of the mentoring effort should not commence right away with the arrival of the new hire; it would be better started after he/she has been here for a semester. The chair/new hire meetings should occur at least every two weeks to be effective, and they should continue for at least one semester to establish a good working relationship between the chair and the new hire.

Part 3: Provide a reason for the new hire to interact with many of the incumbent faculty.

The last piece of the mentoring plan is to provide a valid reason (i.e., an official departmental assignment or task) for the new hire to regularly interact with many of the department faculty. In the time-line, this should occur in the second semester, after the new hire has gained some perspective on the department's regular activities and still in time to serve as an intervention (i.e., before true dissatisfaction occurs). Again, a curriculum development task is a good venue for this interaction, such as helping to revamp a cornerstone course with a team of incumbent faculty, or serving on a "safe" committee that meets frequently – "safe" meaning that

the new hire should regularly be brought into the company of many departmental faculty in an environment where exchange is encouraged and welcomed and not liable to generate animosity. This will allow the new hire to better know the faculty and to better understand their individual perspectives on departmental matters. This overall interaction can thwart the possibility of a single person (e.g., the go-to person/mentor or even the chair) coloring the perspective of the new hire too much and too soon for the best career results. If the reason for the faculty interaction is genuine, the benefits for the new hire will be a greater sense of making a true contribution, a stronger feeling of being appreciated by the department as a whole, a better sense of belonging to the department, and a better sense of where collaborative opportunities may lie. This interaction should continue for at least a semester if the meeting frequency is high (e.g., every other week) or longer if the faculty meetings are less frequent (e.g., monthly).

Draft Faculty Mentoring Plan
Geological & Mining Engineering & Sciences
Michigan Technological University

(originally authored by J.S. Gierke, Professor & Interim Chair 2009-10; November 1, 2010)
(modified slightly by W.D. Pennington, Professor and Chair; October 19, 2010)

Context

All faculty start with different experiences, skills, and visions for an academic career and their progress towards promotion and academic success will likely follow unique paths depending on their skills and vision, as well as the circumstances they encounter during the early stages of their careers. The nature of a particular mentoring system should be tailored to the unique skills and experiences and professional vision of each faculty member. Therefore the departmental faculty mentoring plan encompasses the different facets of mentoring that will take place, in different forms and to different degrees, depending on the unique characteristics of each participating faculty member.

While practically all faculty understand the basic elements that define what we do: scholarship, teaching, and service, difficulties often arise in terms of deciding the balance of these elements and quality with which people perform their work. There is neither an optimal balance nor an established minimum quality, so mentoring will strive to guide faculty to prioritize their work in as strategic as possible manner and to confirm that they are doing so in a quality fashion.

Elements for Mentoring

Definitions and suggested practices

A faculty mentor (FM) will be assigned by the department chair (DC) for each protégé faculty (PF) after completion of hiring documents.

Prior to the arrival of the PF on campus (usually in mid-summer), a tentative or transitional FM will contact the PF and provide a welcome and introduction to some initial documents and procedures.

During the first semester, the FM should frequently meet, often informally over lunch or coffee, with the PF; the PF should feel free to discuss any matter with the FM at any time and for any reason. If the PF does not bring up issues independently, the topics of any recent professional development session organized by the administration could be used as conversation starters. After the first semester, the PF will participate in selection of a “permanent” FM with the DC; it may often occur that the transitional FM becomes the permanent FM.

From a mentoring perspective, the activities that faculty struggle with balance and quality primarily pertain to proposal writing, grant management, scholarship (refereed journal papers and conference presentations), student advising, and teaching. Below are the elements of the mentoring opportunities for new faculty.

Proposal Writing

The FM will work closely with their PF to outline grant opportunities that will most likely be pursued that year. The proposal activity of faculty will be reviewed by the FM and DC each semester. The PF will be encouraged to allow the FM to review the review-panel comments on his/her proposal and discuss approaches to revise/re-submit and/or factor into future submissions. We anticipate this as an intensive effort in a faculty's first 3-4 years. If the department lacks appropriate technical expertise to effectively mentor the PF in proposal writing, then someone with the proper expertise and accomplishments will be sought to assist with this effort.

Grant Management

Mentoring on the budgetary and reporting aspects of grant management will be provided by the DC at least twice each year, or as needed. The department will provide staff assistance in budget tracking and budgeting for proposal submissions.

Scholarship

The Department Promotion and Tenure (P&T) Committee will annually review the scholarship activities of faculty who either have not been tenured yet or are not yet reached Full Professor and provide an assessment, considering the grant activity and graduate student advising, of their publication and presentation activities. This will take place in December, after which the P&T will meet with the DC to prepare an appropriate evaluation and recommendation. This is meant to coincide with the interim and 2-year reviews of untenured faculty. The PF may elect to gain additional mentoring if he/she feels that the department is lacking expertise to properly gauge her/his scholarship or if he/she perceives that more effective mentoring in scholarship could be attained outside the department. The goal of this activity is to facilitate quality publications on research activities of every graduate student and post-doctoral scientist that the PF advises. The P&T and DC are aiming to help the PF choose, in an advisory fashion, what aspects should receive the most attention towards publication and to judge whether to present at a conference.

Student Advising

Advising graduate students is often presumed to be an inherent skill of faculty and as a result it is often overlooked as something that faculty need to gain experience in and develop skills for working with students on research. The DC will work with the PF to determine whether to use a particular faculty with recognized skill in advising—maybe the FM—or the P&T committee should evaluate the PF's students' progress and scope of thesis/dissertation work. The goal of the evaluation is to provide the PF with a sense of the level of his/her students' work, time-to-degree, the likelihood of publication, and the amount relative to other students in the department.

Teaching

The DC and P&T will review the course evaluations of the PF at the time of the scholarship review and provide some assessment on the development of effective teaching skills. The DC and PF will develop a plan for increasing teaching effectiveness, which might entail simple discussions with the DC or an accomplished faculty member, faculty-peer visits to the classroom, or recommendations for teaching workshops. Like the prioritization plan for scholarship, the DC and P&T will develop a set of straightforward recommendations for improving the teaching effectiveness of the faculty. If appropriate, a specific "teaching" mentor

will be assigned, reflecting appropriate subject area expertise and teaching quality; in general, however, the DC and PF will probably suffice.

Mentoring Implementation

Table 1 outlines the elements of mentoring, primary responsibility and expectation of the protégé faculty, and frequency of at least the culminating activities annually. The DC will be responsible for developing and implementing faculty mentoring in the department. The annual reviews, which will extend at least to the time of promotion to tenure, will provide the formal occasion for the DC to confirm that the above elements have received the appropriate attention and the plan is adjusted to better meet the needs of the faculty. Records will be kept in the faculty files used for annual reviews.

Table 1. Department of Geological & Mining Engineering & Sciences Faculty Mentoring Plan.

Mentoring Element	Primary Responsible Mentor(s)	Expectation	Frequency
Proposal Writing	Faculty Mentor (FM)	Optional for the Protégé Faculty (PF)	Determined by the PF & FM, as needed. DC to check on status annually (December)
Grant Management	Department Chair (DC) and Staff Designee	Required participation by the PF	At least twice each year
Scholarship	DC and Promotion & Tenure (P&T) Committee	Required participation	At least an annual review by DC and P&T (December)
Student Advising	DC to designate appropriate mentor(s)	Optional for PF	As needed, DC to check annually on needs
Teaching	DC and P&T to review annually, a teaching mentor potentially could be assigned	Optional for PF	At least an annual review by DC and P&T (December)

FACULTY MENTORING PROGRAM

Department of Materials Science and Engineering

This document identifies the goals, strategies, and tactics that together make up the Department of Materials Science and Engineering's program to mentor junior faculty members.

THE RESPONSIBILITY OF THE INDIVIDUAL JUNIOR FACULTY MEMBER

The individual faculty member is ultimately responsible for building a record in scholarship, teaching, and service that merits promotion and/or tenure.

GOAL OF MSE FACULTY MENTORING PROGRAM:

The goal of the MSE faculty mentoring program is to provide opportunities for all untenured faculty or assistant professors to acquire feedback and information that will enhance their ability to make decisions concerning

- 1) Strategies for publication in peer-reviewed journals,
- 2) Strategies for soliciting funding agencies with proposals for research,
- 3) Strategies to achieve excellence in teaching and student advising, and
- 4) Strategies for balancing the demands on their time due to their simultaneous roles as scholars, enablers of graduate and undergraduate student scholarship, classroom teachers, contributing members to professional organizations, and members of committees providing University and departmental service

In this way, the department hopes to aid the junior faculty member in meeting his or her responsibility to build a record in scholarship, teaching, and service that merits promotion and/or tenure.

STRATEGIES EMPLOYED BY THE MSE FACULTY MENTORING PROGRAM

There are four strategies the mentoring program employs to meet the above goal: (I) Initial career advising for the new faculty, (II) Design of an appropriate work load for the new junior faculty member, (III) Providing one-on-one early career advising, and (IV) Providing frequent and periodic formal review of junior faculty members progress towards building a record in scholarship, teaching, and service that merits promotion and/or tenure.

The tactics employed to execute these strategies are described below.

TACTICS EMPLOYED OF MSE FACULTY MENTORING PROGRAM

I. Initial Career Advising for New Faculty:

As soon as a candidate accepts a position, the chair will work with his or her colleagues to develop a career advising plan for the new faculty member. Upon arrival on campus, the new faculty member will be consulted in developing this plan. The plan will include attention to teaching, graduate

supervision, and research, and will be predicated on being of assistance to the new faculty member in meeting their responsibility to build a record in scholarship, teaching, and service that merits promotion and/or tenure. It will include University and Departmental expectations (tenure review criteria, norms about teaching loads and service, etc.).

II. Designing an appropriate initial workload for the new junior faculty member:

The chair will review the junior faculty member's work assignments carefully to ensure that (as much as possible) they are not being burdened by an excessive number of new course preparations, too many large classes, or demanding service (committee) assignments. The first year of the new junior faculty member's appointment should have exceptionally light teaching and service assignments, with the expectation that the junior faculty member will be focusing on successfully starting an externally funded research program. All tenure-track faculty should be given the opportunity to teach in the area(s) of their research at the senior undergraduate and graduate levels. Service assignments to tenure-track faculty should ideally serve as mentoring contexts in which the candidate learns about the values and operations of the University.

III. One-on-one early career advising:

IIIA) One or more senior faculty members will be identified that could potentially collaborate with the new faculty member in submitting a proposal for research and/or that can provide information to the junior faculty member about specific issues unique to the junior member's field of research (potential sources of funding, etc.).

IIIB) A senior faculty career advisor will be jointly decided upon by the junior faculty member, the department chair, and the proposed senior faculty member. The department chair, the junior faculty member, and the senior faculty career advisor will meet together at least once each year as a group to discuss the junior faculty member's progress, and to identify strategies for the next year based on this progress.

IV. Frequent and periodic formal review of junior faculty' members progress towards building a record in scholarship, teaching, and service that merits promotion and/or tenure:

Every year the Departmental Tenure and Promotion Committee will review the junior faculty's progress to date towards building a record in scholarship, teaching, and service that merits promotion and/or tenure. This report will be submitted to the department chair. In some cases, this report may also include constructive feedback about scholarly work (manuscripts, grant proposals) or the overall curriculum vitae or record, advice about balancing work and other activities, or identification of scholarly or leadership opportunities. The Department Chair will then schedule a meeting with the junior faculty member to discuss strategies to enhance performance, if appropriate.

Department of Mechanical Engineering-Engineering Mechanics

Faculty Mentoring Program

November 1, 2010

The Department of Mechanical Engineering-Engineering Mechanics (ME-EM) at Michigan Technological University has had a mentoring program for new faculty since 1999 with periodic updates based on feedback from mentors and mentees. The department chair together with the new faculty member jointly selects a faculty mentor. The selection the mentor is completed within about a month of their first semester on campus. The chair meets with the mentor and mentee separately to go over the expectations.

Attached are the guidelines given to the mentor and mentee. It includes the following general topics:

- Qualities Sought in the Mentor
- Expectations of the Mentor
- Next Steps

Service as a mentor is recognized by the department chair in the service part of the department merit algorithm used for raises.

At the end of each year the department chair meets with the mentee (and mentor if needed) to determine if the relationship is working and what if any changes are needed.

Also attached is a copy of the letter sent to the mentor and copied to the mentee.

The Faculty Development Committee (PTR) meets with each untenured faculty member every year up to and including the year of the tenure decision.