Developing a Culture of Advising and Mentorship in Graduate Education at Michigan Tech

Historically, graduate education has followed an apprenticeship model. In this model, a student receives on-the-job training, which may be supplemented by classes or other study. The skills and practice of the discipline are imparted as the student works under the direction of one who has already mastered them. While this model might have been appropriate for doctoral students in a time when most went on to become faculty members themselves, its utility is questionable in a time when the Masters degree has assumed an increasingly important role in graduate education and the majority of students receiving the PhD will not follow careers in academia.

When assessing graduate education in STEM disciplines in the 21st century, the National Academy of Sciences noted a need for an evolution in graduate education.[1] The report called for "… substantial cultural change throughout the system." and goes on to state "… the system must become more student-centric and must increase the value it places on best practices of mentorship and advising[2]."

There is no question that there are excellent advisors and mentors at Michigan Tech. However, there is currently no institutional forum in which to discuss and learn about following the best practices. If Michigan Tech is to remain competitive in graduate education, we must enhance advising and mentorship at the graduate level. We must make such practices a part of our institutional culture.

How can Michigan Tech achieve these ends?
- Constitute a faculty committee to promulgate best practices of advising and mentorship across campus. This committee would seek regular input from an advisory committee of graduate students.
- Host regular workshops on advising and mentoring. These workshops will include both internal speakers (most likely drawn from the committee described above) and experts from other universities which have already developed a culture of graduate mentorship.
- Recognize and provide an incentive for excellence in advising and mentorship at the graduate level. This might include university level awards and a revision of the F1 form to include a statement on graduate advising and mentorship.

A shift from a model based on apprenticeship to one that is centered on student success will not happen without a commitment from the institution at all levels. As the National Academies Report states, "It [the current system of graduate education] must be realigned to increase the relative rewards for effective teaching, mentoring, and advising."

We must begin this transformation at Michigan Tech.

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[1] National Academies of Sciences, Engineering, and Medicine. 2018. Graduate STEM Education for the 21st Century. Washington, DC: The National Academies Press. https://doi.org/10.17226/25038.

[2] The distinction between advising and mentoring is an important one. Advising is the hands-on training and guidance through the concrete elements of the program (e.g. classes to take, research techniques to master, etc…). Mentorship is a more personal interest in the student's immediate and long-term success. It might include professional development opportunities, targeted to the student's career goals, introductions to key members of the community at conferences, or opportunities to pursue internships or co-ops, which do not contribute directly to the faculty member's research program.

Michigan Technological University
Graduate School

Ensuring Independence of Opinions in Evaluation of Graduate Students
Effective date: July 1, 2019

Policy Statement
The University is committed to protecting the educational interests of students and maintaining an open and transparent environment in the evaluation of students. Faculty in close personal relationships (see definition below) should not be members of the same graduate student's committee. If there are compelling reasons such that two (or more) faculty in a close personal relationship are recommended as members of a student's committee, the relationship must be disclosed during committee formation, a rationale for including these faculty on the committee must be included, a management plan must be developed for the committee, and the faculty in a close personal relationship must be in the minority on the committee.

Policy Requirements
This policy applies to graduate students who require a committee to evaluate any portion of their academic work, including, but not limited to, their dissertation, thesis, report, practicum, qualifying examination, or research proposal examination.

The close, personal relationship; a rationale for including these faculty on the committee; and a management plan for the committee must be disclosed at the time of committee formation. For an advisory committee, this information will be included on the Advisor and Committee Recommendation form. For other committees, the program should follow their regular procedure for committee formation.

Graduate program directors, department chairs (if applicable), school deans (if applicable) and the Dean of the Graduate School (for advisory committees) will weigh both the rationale and management plan when making a decision as to whether to approve the formation of the committee.

Faculty in a close personal relationship must be a minority on the committee. (i.e. If two faculty are in a close personal relationship, there must be at least three additional faculty on the committee.)

Neither of the faculty in a close personal relationship may be the sole external member of the advisory committee.

Purpose
Evaluation of graduate students' work is one of the most important responsibilities for a member of the graduate faculty. Considering this responsibility, it is critically important that these evaluations be fair, transparent, and free from conflict of interest. To that end, in any case in which Michigan Tech faculty members in close, personal relationships participate together on a student's committee, care must be taken to ensure that there is no actual or perceived conflict of interest.

Scope
This policy applies to committees that evaluate graduate academic work.

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Definitions

Close, personal relationships include (but are not limited to) marriage, domestic partnership, parent-child, and siblings.

A committee in this policy is any committee formed to evaluate graduate student academic work. This includes work such as their dissertation, thesis, report, practicum, qualifying examination, or research proposal examination.

The advisory committee provides guidance during the conducting of an original research project.

A management plan describes the arrangement for handling any potential conflicts that may arise. In drafting a management plan, items that could be considered include how to resolve conflicts between the student and committee members, how students will register for research credits/courses, and/or who will be responsible for providing timely written feedback to the student.

Responsibilities, Procedures, and Forms

Graduate students must be aware of this policy when considering committee members and must be provided a copy of the approved management plan for the committee.

Faculty serving on committees must be aware of this policy and must disclose close, personal relationships when the committee is formed. They must also develop a rationale for the committee selection and a management plan for the committee.

Graduate program directors must be aware of this policy and will review prospective committees to ensure that close, personal relationships are disclosed, the rationale is appropriate, and a reasonable management plan has been developed. Graduate program directors are responsible for approving advisory committee recommendations.

Department chairs and school deans must be aware of this policy and will review prospective committees (where appropriate for the unit's procedure) to ensure that close, personal relationships are disclosed, the rationale is appropriate, and a reasonable management plan has been developed. This individual, or designee, is responsible for ensuring that the management plan is followed. For committees other than the advisory committee, this individual, or designee, provides a copy of the approved management plan to the student.

The Dean of the Graduate School, or designee, is responsible for being aware of this policy, answering questions about implementation of this policy, and reviewing and approving prospective advisory committee recommendations. For advisory committees, the dean, or designee, provides a copy of the approved management plan to the student.

Forms

Graduate students recommend an advisory committee by completing the Advisor and Committee Recommendation Form.

Graduate students report results of the qualifying or research proposal examination to their graduate program by completing the Report on Qualifying or Research Proposal Examination Form. This form includes the composition of the examining committee.

Graduate Program Handbook Update

Nearly all of our graduate programs now have a handbook - thank you for your all of your hard work in completing this initiative. Will Cantrell and Debra Charlesworth have reviewed the handbooks, and will provide program specific feedback about the three items that were required to be included. All handbooks should be posted online by May 15th. The revisions fall into four categories:

1. Missing handbooks. Please provide a handbook by May 15th for review by the Graduate School. Programs missing a handbook will not be considered for Finishing Fellowships.
2. Major revisions. Please revise your handbooks by May 15th for a second review by the Graduate School. Programs who do not revise their handbook will not be considered for Finishing Fellowships.
3. Minor revisions. Please revise your handbooks according to the comments provided and below.
4. Acceptable as submitted. As needed, please revise your handbooks according to the general comments below.

Many graduate programs had some common elements to address. All graduate programs should review their handbooks for the following items and revise them as needed. Please contact Debra Charlesworth (ddc@mtu.edu) if you have any questions about these items.

- Please refer to forms by their full names, not numbers. Terms like M4, D8, etc. are not found on the Graduate School website. Banner forms, reports, and Perceptive Content are in the process of being updated with the move to Banner 9.
- We recommend that you work to make your handbook accessible to be compliant with University policy. We have created an accessible graduate program handbook template (See "Templates for New Graduate Programs") to assist you.
- If your handbook does not already include an absence or grievance policy, we would encourage you to develop one for your next revision.
- The Graduate School does not publish a Catalog anymore. If you refer to the Catalog, please refer instead to the appropriate section of the website.
- The Graduate School does not use the terms Plan A, B, C, or D on their website. Please use thesis, report, and coursework to refer to master's degree options.
- Update links to represent the current web pages.
- Residency requirements were incorrect for some programs. See current residency requirements online. The requirements are identical for PhD and master's level programs.
- Research-only mode is now referred to as research mode.
- IGTAAP is now IGSC3.