Minutes of the Graduate Faculty Council Meeting

Tuesday, March 4, 2014

**Members** (15): Andrew Storer (SFRES), Simon Karn (Geo), Kari Henquinet (PCorps), Erika Hersch-Green (BioSci), Ashutosh Tiwari (Chem), Audrey Mayer (SocSci), Zhenlin Wang (CompSci), Caryn Heldt (ChemEng), Veronica Griffis (Civ&Env), Patty Sotirin (Rhet), Shane Mueller (CogSci), Craig Friedrich (MEEM), Warren Perger (ElecCompEng), Keat Ghee Ong (Biomed), Noel Urban (NonDeptEnvir)

**Guests** (7): Debra Charlesworth (Grad Sch), Amberlee Haselhuhn (GSG), Heather Suokas (Grad Sch), Sarah Lucchesi (Lib), Thy Yang (IPS), Mary Stevens (IPS), Christopher Babbitt (Career Services)

1) Meeting called to order at 4:05 pm.

2) Review and approval of 02/04/14 meeting minutes.

3) Committee Reports:
   a. Research Only Mode (N. Urban): The committee was tasked to propose an alternative to Research Only Mode in which students would be able to take a limited number of classes at a reduced rate. Please refer to the handouts section of the GFC website for background and current rules. The committee proposes that in addition to the above “research-only mode”, an additional mode would be created that would enable graduate students who have passed all required course work and (doctoral students only) who have passed their qualifying exam and proposal defense to enroll in “research-intensive mode” for up to two terms. In this mode, students would register for six (6) credits of research at 1/3 the standard tuition rate and three (3) course credits at the standard tuition rate (i.e., pay for the equivalent of 5 credits at the standard tuition rate). Compared to the present situation, this scheme reduces by 1/6 the cost to the student/researcher for taking up to six credits of courses. The revenue-neutrality of this scheme can only be assessed once it is known how the number of students eligible for research-only mode but who take courses is changed. (If that number does not change, the scheme would cost the university; if the number increases sufficiently, the university could generate additional revenue).
   Accordingly, we suggest that the plan be evaluated after two years to assess the revenue impacts as well as the degree to which the plan satisfies the desire for advanced graduate students to enroll in courses without a cost penalty.

   • (Q): Do the two semesters proposed have to be consecutive?
   • (A): No
   • (Q): The proposal is calculated based on a three credit class, if it were a two credit course could students enroll in seven credits of research?
   • (A): This would have to be looked into as there may be accounting/banner issues.
   • (Q): Do students in Research Only Mode currently have the option to audit a course?
   • (A): When a student audits a course, they still have to pay, the only difference is that they do not receive a grade.
   • (Q): What is the next step for this proposal?
   • (A): Dean Huntoon will forward the proposal to the Budget Team for feedback.
   • (C): Before this is forwarded to the Budget Team, it will need to be presented in a proposal format with the following clarifications: 1. The semesters do not need to be consecutive. 2. Whether or not a two credit course can be taken rather than a three credit course.

4) Old Business: No Old Business
5) New Business:
   a. Changes to Co-ops & Internships (C. Babbit/T. Yang): This fall the co-op course was managed in Canvas. This software resolves concerns of students and advisors. The changes to the program are a result of feedback from students and faculty. Many students requested more interaction with the University and one another, clearer grading criteria, and better visibility of due dates. Advisors requested clearer grading requirements to reduce time and increase impact on grading process. Now co-op students are required to submit all of their assignments by the final day of the semester. This eliminates the four week post-semester due date. Discussions are designed to help students answer the reflective essay questions throughout the semester, and students are reminded of the required assignments periodically throughout the semester. Career Services will still enter a “P” grade for all co-op students at the end of the semester and allow academic advisors ample time to complete the grading. The academic advisor is expected to grade the technical essay questions for their students. Advisors are encouraged to post discussion questions or readings and to communicate with their students. Advisors will be added as either a tech or a TA into Canvas. Please see the handouts section of the GFC website for complete details.
      • (Q): Do international students need to apply for OPT to do this?
      • (A): The internship option is no longer being overseen by Career Services. The University is now defaulting to the term co-op. International students will be required to have a co-op over the summer if they wish to pursue what was previously referred to as an internship. Due to this change they need a work authorization called curricular practical training (CPT).

   b. Proposal to Require Course Syllabi to be Posted on Canvas (A. Storer): The following proposal will be brought to the Senate on 3/5/14 (18-14): “Background and rationale: The Center for Teaching and Learning (CTL) is hearing more and more that students want a standard starting point for a course. Distributing paper syllabi is now regarded as an outdated practice and a questionable use of resources. Although many instructors may have objections to using Canvas more broadly, this policy would allow students to assume a standard starting point, and faculty would still have the freedom to direct students to whatever other resources they prefer to use (e.g., their own website), or to also distribute paper syllabi if necessary. Proposal: We recommend the following change to Senate Policy 312.1 on the Syllabus Requirement for all Courses at Michigan Technological University: Replace the text: ‘The instructor of each section of any course at Michigan Technological University shall provide each student enrolled in their section of the course a printed copy of a course syllabus or shall provide students with a URL containing the web-based version of such a document’ With the following text: ‘The instructor of each section of any course at Michigan Technological University (with the exception of research sections) shall post either a course syllabus document or URL link to the course syllabus within the Learning Management System course (currently Canvas) linked to Banner and created for that section’.
      • Post Meeting Note: This proposal was rejected by the Senate on March 5, 2014.

6) Motion to adjourn at 5:02 pm.
March 4, 2014
(Last update: 03/05/14)

Handouts of the Graduate Faculty Council
Revised proposal to enable students in “Research-only” mode to take courses at a reduced rate

**Background:** In February 2013, Peter Moran (Materials Science) presented a proposal whose goal was to enable students in what is now termed “research-only mode” to take a limited number of classes. The proposal and its rationale may be found in the Handouts for March 2013 in the GFC archive. The original proposal suggested that the costs for registering for these courses be spread over the entire pool of “research-only mode” students by increasing the cost per term of this mode by $50. While there was support for the idea of enabling students to take courses even once they are focusing primarily on their research, there was dissatisfaction with the idea of having all students pay for the actions taken by only some students. Alternative suggestions were also viewed as not being “revenue neutral”. In September 2013, a subcommittee was charged with reviewing the proposal and searching for an approach that is both equitable and “revenue neutral”. This subcommittee met, and proffers the revised procedure described below.

**Current situation:** Graduate students who have passed all required course work and (doctoral students only) who have passed their qualifying exam and proposal defense are eligible to enroll in “research-only mode”. This tuition category allows them to enroll full time (9 credits) but pay 1/3 the standard tuition rate for those 9 credits (i.e., pay for the equivalent of 3 credits at the standard rate). If they wish to take courses, they can either exit research-only mode and pay the standard tuition rate for all credits (research and courses) or remain in research-only mode (paying for 3 credits) and take additional credits for the standard rate. If a student took the latter route and enrolled in one 3-credit course, they would pay for the equivalent of 6 credits at the standard rate.

**Revised proposal:** In addition to the above “research-only mode”, an additional mode would be created that would enable graduate students who have passed all required course work and (doctoral students only) who have passed their qualifying exam and proposal defense to enroll in “research-intensive mode” for up to two terms. In this mode, students would register for six (6) credits of research at 1/3 the standard tuition rate and three (3) course credits at the standard tuition rate (i.e., pay for the equivalent of 5 credits at the standard tuition rate). Compared to the present situation, this scheme reduces by 1/6 the cost to the student/researcher for taking up to six credits of courses. The revenue-neutrality of this scheme can only be assessed once it is known how the number of students eligible for research-only mode but who take courses is changed. (If that number does not change, the scheme would cost the university; if the number increases sufficiently, the university could generate additional revenue). Accordingly, we suggest that the plan be evaluated after two years to assess the revenue impacts as well as the degree to which the plan satisfies the desire for advanced graduate students to enroll in courses without a cost penalty.

Minutes from previous discussions are available below.
Data summary

Data based on 134 PhD students in Research Only Mode (ROM) as of January 23, 2014. As of that date, no MS students are in ROM.

Table 1. Students in ROM by school or college.

<table>
<thead>
<tr>
<th>School or College</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Engineering</td>
<td>73</td>
</tr>
<tr>
<td>College of Sciences and Arts</td>
<td>39</td>
</tr>
<tr>
<td>Non-departmental programs</td>
<td>15</td>
</tr>
<tr>
<td>School of Forest Resources and Environmental Science</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 2. Students in ROM by program.

<table>
<thead>
<tr>
<th>Graduate Program</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmospheric Sciences</td>
<td>5</td>
</tr>
<tr>
<td>Biochemistry and Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>2</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>7</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>18</td>
</tr>
<tr>
<td>Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>6</td>
</tr>
<tr>
<td>Computer Science</td>
<td>7</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>8</td>
</tr>
<tr>
<td>Engineering Physics</td>
<td>4</td>
</tr>
<tr>
<td>Environmental and Energy Policy</td>
<td>2</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>9</td>
</tr>
<tr>
<td>Forest Molecular Genetics and Biotechnology</td>
<td>1</td>
</tr>
<tr>
<td>Forest Science</td>
<td>6</td>
</tr>
<tr>
<td>Geological Engineering</td>
<td>1</td>
</tr>
<tr>
<td>Geology</td>
<td>6</td>
</tr>
<tr>
<td>Industrial Heritage and Archaeology</td>
<td>1</td>
</tr>
<tr>
<td>Materials Science and Engineering</td>
<td>11</td>
</tr>
<tr>
<td>Mathematical Sciences</td>
<td>1</td>
</tr>
<tr>
<td>Mechanical Engineering-Engineering Mechanics</td>
<td>16</td>
</tr>
<tr>
<td>Physics</td>
<td>7</td>
</tr>
<tr>
<td>Rhetoric and Technical Communication</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3. Terms enrolled and credits attempted statistics.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Median</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of terms enrolled</td>
<td>3</td>
<td>24</td>
<td>10</td>
<td>10.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Number of terms prior to ROM</td>
<td>2</td>
<td>19</td>
<td>8</td>
<td>8.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Terms in ROM (through fall 2008)</td>
<td>0</td>
<td>9</td>
<td>1</td>
<td>2.2</td>
<td>2.1</td>
</tr>
<tr>
<td>Total number of credits attempted</td>
<td>27</td>
<td>165</td>
<td>75.5</td>
<td>75.3</td>
<td>24.5</td>
</tr>
<tr>
<td>Credits attempted before ROM</td>
<td>18</td>
<td>130</td>
<td>57</td>
<td>58.4</td>
<td>23.2</td>
</tr>
<tr>
<td>Credits attempted in ROM</td>
<td>0</td>
<td>65</td>
<td>9.5</td>
<td>17.0</td>
<td>15.2</td>
</tr>
</tbody>
</table>
Figure 1. Histogram of the number of semesters students were enrolled prior to entering ROM.
CHANGES TO THE COOPERATIVE EDUCATION COURSE
This fall the co-op course was managed in Canvas. This software resolves concerns of students and advisors.
- Many students requested more interaction with the University and one another, clearer grading criteria, and better visibility of due dates.
- Advisors requested clearer grading requirements to reduce time and increase impact on the grading process.

DESIGN
Students must complete the assignments in sequential order, which is controlled by the ‘Module’ setting in Canvas.
Assignments include:
Orientation Quiz (10 points)
- Career Services created an Orientation Manual outlining the co-op course.
- Students take a 10 question quiz on the manual, which is graded.

Progress Evaluation (20 Points)
- The progress evaluation is found on the Career Services website (the link is provided within Canvas), which must be submitted by the due date.
- Submission of the assignment is sufficient for obtaining all the points.

Student’s Final Evaluation (10 points)
- This is no longer a form completed by the students, but a 40 question survey located within Canvas.
- Completion of the survey is sufficient for obtaining the points.
- Administering the survey in Canvas provides Career Services with exportable data, which will aggregate over time and be used to help students and, potentially, employers evaluate co-op assignments.

Supervisor’s Final Evaluation (40 points)
- Like the progress evaluation this is found on the Career Services website and submission of the assignment by the due date is sufficient in obtaining the points.
- If a student performs poorly on the final evaluation, then this will be addressed on an individual basis.

Technical Essay Questions (50 points)
- The technical report is replaced with two essay question sets.
- The first set focuses on the technical aspects of the co-op assignment.
- The student types the responses to the questions and, as with the technical report, the company supervisor signs the document to approve the information contained therein.
- The student uploads it into Canvas.
- The Academic Advisor grades this section.
- Quality of responses as well as grammar, spelling, and formatting are assessed.
- Each question has its own value, which, in total, will equal 50 points.
- Advisors have the ability to write comments on each response in the rubric offering an explanation for the points earned.

Reflective Essay Questions (50 points)
- These questions are similar to the ‘essay questions’ required on the technical report.
- These questions focus on non-technical, in particular career, issues related to the co-op.
- These questions also have individual point values, which total 50 points.
- A comment section is provided on the rubric and the same criteria apply.
- The Assistant Director for Experiential Learning grades these questions.

Resume (10 points)
- The students are required to upload an updated resume to Canvas.
- Submission of the resume is sufficient (as long as the proper changes have been made) for the points.

Discussion (10 points)
- Students are prompted with readings and discussion questions throughout the semester.
- Students are required to post one comment during the course of the semester to obtain the points.
- There is also a discussion section for co-op students to safely discuss their locations, social agendas, housing, etc. Students often do not know if other students are working on a co-op at the same company or in a nearby location. Canvas provides students with a forum for connecting and this is monitored by the Assistant Director for Experiential Learning to ensure compliance with University policies.
Final Grade Rubric
200 - 180 A
179 - 160 B
159 - 140 C
139 - 120 D
119 and below F

OTHER CHANGES

- Co-op students are required to submit all of their assignments by the final day of the semester.
- This is eliminating the four week post-semester due date.
- Discussions are designed to help students answer the reflective essay questions throughout the semester, and students are reminded of the required assignments periodically throughout the semester.
- Career Services will still enter a ‘P’ grade for all co-op students at the end of the semester and allow academic advisors ample time to complete the grading.

ACADEMIC ADVISORS’ ROLE

- The Academic Advisor is expected to grade the technical essay questions for that Advisor’s students.
- Academic Advisors are encouraged to post discussion questions or readings and to communicate with their students. We can work together on this process.
- Advisors will be added as either a teacher or a TA into Canvas.
- At some point in the semester (before the end) students will be divided into sections by major and the appropriate Advisor(s) will be added to that section.
- Grading will consist of only those students within that section.

Changes to the Career Services website to reflect these new co-op requirements occurred prior to the start of the fall semester. I humbly request your patience in this process as unforeseen issues will likely arise. Please feel free to provide me with any feedback you have at cbabbit@mtu.edu or 7-3320.

THANK YOU FOR ALL YOUR ASSISTANCE AND SUPPORT!
TECHNICAL ESSAY QUESTIONS

You will need to type your responses to the below questions or statements on a document. You will print your responses and the attached document, have your work supervisor review your responses, and sign the attached document proving that the supervisor approves of the content contained therein. As with any written assignment clarity, adequate detail, and spelling/grammar will be assessed during grading.

1. Describe the company for which you worked. Include responsibilities, objectives, and interactions with other departments in your description.
   - Name
   - Location
   - Division
   - Products
   - History
   - Organizational Structure
   - Your department
   - Mission, vision, values, goals

2. Describe your work assignments or projects in relation to your academic program. Consider the following questions:
   - How did these projects relate to your major and academic coursework?
   - How did your coursework prepare you for your co-op?

3. Provide a detailed explanation of the objectives and projects on which you worked. As you explain your projects consider the following questions:
   - How did these projects relate to the goal of your division and company?
   - Which techniques, skills, programs, and tools did you use and how did you employ them?
   - How did you ensure that safety measures were followed?

4. How has the co-op work experience influenced your ability to identify, formulate, and solve problems?

5. How did the co-op experience impact your professional development? What can your academic department do to improve the co-op experience?

REFLECTIVE ESSAY QUESTIONS

You will need to type your responses to the below questions or statements on a document. You will print your responses and the attached document, have your work supervisor review your responses, and sign the attached document proving that the supervisor approves of the content contained therein. As with any written assignment clarity, adequate detail, and spelling/grammar will be assessed during grading.

1. How has this co-op experience impacted your career path? Explain how the co-op experience has contributed to developing your career path.

2. Describe how your co-op experience improved your written and verbal communication skills. Provide specific examples.

3. In what ways have your expectations and the reality of the co-op experience been different?

4. Describe how the co-op enhanced your understanding of professional and ethical responsibility. Use examples from your field’s Code of Ethics.

5. Describe your team building experience while at your co-op work site.

6. Please provide recommendations for improving the co-op course. What could Career Services/MTU do differently? What could your employer do differently? Are there any components that should stay the same? Would you recommend a co-op to another student? Why or why not? (This question is not worth points, but is very helpful in assessing the co-op program. Thank you for your help.)
1. Student Information:

List all the semesters you will be working for the company. As a graduate student, one credit of co-op will qualify you as a full-time student, but you may register for up to 6 per semester. If you have registered for other classes for the semester(s) you are on co-op, we must have your permission to drop them.

<table>
<thead>
<tr>
<th>Name: (First)</th>
<th>(Middle)</th>
<th>(Last)</th>
<th>GPA:</th>
<th>Class Status While on Co-op:</th>
<th>Student ID #:</th>
</tr>
</thead>
<tbody>
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<tr>
<th>Semester:</th>
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<td>Year:</td>
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<td>Year:</td>
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<tr>
<td>Co-op</td>
<td>Intern</td>
<td>Co-op</td>
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<td>Credits:</td>
<td></td>
<td>Credits:</td>
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<td></td>
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<tr>
<td>Permission to drop classes:</td>
<td>Permission to drop classes:</td>
<td>Permission to drop classes:</td>
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<td># Co-op</td>
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<td>Credits:</td>
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<td>Credits:</td>
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Mailing Address While on Co-op **(Please update mailing address in BanWeb)**:

<table>
<thead>
<tr>
<th>Personal Phone:</th>
<th>MTU email address:</th>
<th>Emergency Contact phone #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City:</td>
<td>State:</td>
<td>Zip:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Contact Name:</td>
<td>Relation to you:</td>
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</table>

2. Company Information

Co-op Employer
(Company Name):

<table>
<thead>
<tr>
<th>Supervisor/Contact:</th>
<th>Title:</th>
<th>Phone:</th>
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Company Address:

<table>
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<tr>
<th>City:</th>
<th>State:</th>
<th>Zip:</th>
</tr>
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<tbody>
<tr>
<td></td>
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3. Compensation

The following information is helpful for maintaining data about co-op compensation offered by employers. Please check all additional benefits that apply and provide details if appropriate.

<table>
<thead>
<tr>
<th>Hourly Salary:</th>
<th>Tuition Reimbursement:</th>
<th>Relocation Expenses:</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Transportation:</th>
<th>Living Stipend:</th>
<th>Other:</th>
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4. Next Steps

When we receive this form and all the necessary paperwork listed below, WE WILL REGISTER YOU FOR YOUR CO-OP CREDITS and send you an email to confirm.

1) Graduate Checklist for Co-op (This ensures you meet all of the eligibility requirements in the first section of this list.)
2) Cooperative Education Agreement Form (This form can be emailed or faxed to your contact at the company for a signature.)
3) Submit a copy of your official offer letter from the company

**ATTENTION** We must receive all co-op registration paperwork prior to the University’s “Last Day to Add/Drop” to avoid a late registration fee. (see the Registrar’s webpage for specific dates - www.mtu.edu/registrar)

5. Advisor Acknowledgement and Concurrence

By signing I acknowledge that I am aware that my student will be taking part in a co-op experience. I also agree to read the student’s technical essay question responses and provide Career Services with a grade for the student by the end of the semester.

Advisor’s Name (Print): Signature: Date:

Student Signature & Date Required

X Date:
Graduate Faculty Council—Draft Agenda

March 4, 2014
NOTE: (all handouts connected to a single pdf file)

1. Review minutes of 02/04/14
2. Committee Reports:
   a. Research Only Mode
3. Old Business:
4. New Business
   a. Changes to Co-ops & Internships (C. Babbit/T. Yang)
   b. Proposal to Require Course Syllabi to be Posted on Canvas - Senate Proposal 18-14 (A. Storer)