

# Academics Committee Meeting

February 20, 2002

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Attendance: Lauren Webb, Chip Sumner, Mike Fleming, Heather Cox, Marissa Mock, Tim Lesko, Marissa Mock, Ileana Carpen

**SURF survey.** The general results were positive. There were 19 respondents; 17 of whom would be willing mentor again. Lauren plans to talk to Carolyn Merkel about the results, suggesting that the SURF office interacts more with the graduate student mentors. Chip notices that there are also some problems with lack of interaction between the professor advisor and the SURF student. One of the comments expressed dissatisfaction with the fact that SURF students are actually making more than their graduate student mentors. Marissa suggest that perhaps mentors should be paid extra, much like a TA position. The DVD prize was randomly awarded to Jill Sakata from Chemical Engineering.

**Everhart Lecture Series.** Ramesh has not responded to any of Lauren's 6 emails (3 this week). Heather confirms that he has not been run over by a truck. Lauren will try contacting Jeff B., who is on the committee, to find out what is going on, and Heather will try emailing Ramesh as well.

**GSC-II (Mike F.).** The presentation time at the GSC-II meeting was reduced slightly from the promised time; the response to the 10 min presentation (the slides and his notes are included at end of minutes) was positive for the idea but worried that practical implementation will be difficult. Mike suggests that we follow up with an email through the Dean's office. Heather relates this issue to candidacy, and wonders why it can't be a similar requirement. Mike thinks that nobody wants to put in the work to make it happen, even though they think it's a good idea. Chip worries that the Option Reps are not a representative sample, that they will be more concerned with student problems, other faculty may be less positive about the idea. Chip thinks that part of the motivation to finish candidacy is the requirement to fill out purple forms. He suggests that, at a minimum, we could force students to call a committee meeting to get a purple form signed. Heather points out that this is very much less than what we actually attended; she thinks that we should try to get more accomplished. We could create a new form to go with our 4-year meeting, or even revise the current purple form, which is very short and not as useful. Tim suggests making the form positive ("What will you do to finish?") as opposed to negative ("Why haven't you finished yet?"). The next GSC-II meeting is March 12. Mike thinks we should give them a plan by then. Heather mentions that in one Division students are assigned Mentors who are not their advisor, and they have to meet with the Mentor once a year. This might address some of the scheduling difficulties with committee meetings. Heather suggests having another meeting to discuss our plan, the forms, etc. What do we want to advise the GSC-II to implement? Lauren thinks that a form is a good idea. Chip says that we should have a "Committee Meeting Report Form," that is filled out any time there is a committee meeting, and that a purple form can be stapled to it if necessary. Mike thinks that we will be turned down if we suggest yearly committee meetings, but a 4th-year meeting might generate enough support.

Lauren would like to add more after the 6th year. Heather thinks that it should be Institute-wide. Turn the “purple form” into a committee meeting and have the first at the 4th year. Ileana worries that removing the stigma from the purple form is a bad idea, because people will drag it out longer. Heather thinks that our form should replace the purple form. Ileana thinks we should tack the purple form on to the 6th year form (same as 4th year form). We generally agree that asking that this form is used at the 4th and 6th year committee meetings. It may be less useful at candidacy, since some student have done smaller project and have not yet started on their longer thesis project. In other Divisions, candidacy is a proposal for a thesis project. Tim worries that options will be less inclined to accept a plan that interferes with candidacy, which is often a very set, formal process. We decide to ignore candidacy. Mike will put together a form, and the committee will discuss it by email, perhaps meeting once to discuss it before the GSC-II meeting. Tim suggests including, date, members in attendance, work completed so far, work that will be completed for thesis, next meeting date, signatures. We will all email Mike our suggested forms, he’ll put them together, fill them out and send them back for us to discuss. We think that the goals section should be filled out \*during\* the meeting, although it makes sense for the student to have thought about it beforehand.

**Career Development Center.** Lauren met with Victoria Leiding, the new career counselor, who seems very interested in making the CDC more attractive to and helpful for graduate students. We should come up with ideas for how the CDC could help graduate students. Offering brown bag lunch seminars on topics like speaking skills, and interviewing workshops, etc. Lauren thinks that advice for applying for academic jobs is not well represented in CDC offerings. Ileana agrees; this is supposed to come from the advisor, but frequently doesn’t. Heather thinks that the things they already teach are useful for applying for academic jobs. Chip thinks that the CDC should be making people aware of what they’d need to get an academic job (grant writing skills, a teaching portfolio, etc). Heather mentions one concern with Monster Trak, some students missed interviews because the interview dates and times would change with less than 24 hours notice. They may also be organizing more company visits.

The meeting was adjourned after this discussion. I’m really, really going to have to learn to write this stuff down.

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Here are Mike’s notes and slides from the presentation to the GSC-II:

Good afternoon. I'm Mike Fleming, the Graduate Student Council Vice-Chair, and I'll be presenting a recommendation today on thesis advising.

Our motivation for looking at thesis advising comes from survey results on student/advisor conflicts. Back in 97, a quality of life survey revealed several problems, and the dean of graduate studies at the time asked the options to make changes, including adding to their catalog entries, in order to address the concerns. This had a positive effect, but a 2001 GSC survey revealed a few ongoing conflicts.

Specific issues related to advising have cropped up in a number of places. The PhD exit surveys run by the GSC showed only one area in which students did not feel positive about their research experience. That was whether their advisor had been effective in laying out a plan of what needed to be done to finish the thesis. 32% of students felt that their advisor had been ineffective at doing this.

In October, the Dean revealed that there are some students falling through the cracks, so to speak. The number of excessive registrations has increased, and there was even an example of a fourth year student without an advisor.

In talking with faculty, we've heard some concerns related to advising. Some faculty feel that there should be some way to address the problem of students who are drifting for a long time. Also, Professor Tai, the double e option rep, pointed out that members of a defense committee often have very limited input to a student's thesis, because they only see it for the first time two weeks before the defense takes place. What could have been useful input is just not solicited early enough.

Finally, with regards to conflict between students and advisors, the ombudspople have identified one common thread: Regardless of the type of problem, the overriding concern is that the student did not have a second or third person to turn to.

Our recommendation to this committee is for every option to encourage student-faculty relationships through a thesis advising committee. The committee should consist of three or more faculty, with the advisor not being the chair so as to better balance the power distribution of the committee. The committee would meet yearly for half an hour or more; the brevity of the meeting is helped by the student writing up a summary of their research progress over the last year, and perhaps a suggestion of where to go next. The committee would review this and help set goals for the coming year.

The most important of these meetings would be in the 4th or 5th year when the student is preparing to write up. At this time, a thesis planning meeting should be held to determine what loose ends should be tied up, and to discuss what should go into the thesis.

This general approach is already in practice in the GPS and biology divisions, where the feeling is that it is of benefit. Looking at our competition, I found that yearly committee meetings were picked as one of the best advising practices at MIT.

The goal of the committee approach is to improve the overall effectiveness of thesis advising. Discussing research progress helps identify problems early and keeps students on track. Ideally, this would help reduce average normative times by mitigating worst-case scenarios. Promoting discussion of research may also lend more breadth to some work, and provides opportunities for more detailed letters of reference. It may be surprising, but many students would struggle to find three professors who have a good idea of what they are doing.

We expect that committees would improve the advising experience for both students and faculty. For students, it allows them to build their relationships with faculty and provides a support mechanism in times of disagreement with their advisor. For the faculty, it hopefully provides more focused students, together with a mechanism to keep students accountable for their progress over the year.

Over the last couple of months we've talked to several of you about this recommendation. Here's some of the feedback we received. First, among the divisions without advising committees, there was a concern that this would be a time burden on the faculty. However, among the faculty I talked to, the majority felt that it is probably a worthwhile investment. We calculate that in the worst case, a faculty member would have one extra meeting once every five weeks.

Another common concern was that, given a choice, students would not want to meet with their committees. Mechanical engineering tried to implement yearly meetings and aimed to enforce the meetings by withholding pay from those students who did not meet. They found that all of the students put off the meetings until the last minute at which time there was a scheduling crisis, and those unable to meet with their committee begged to be paid on the basis that they were \*trying\* to meet with their committee. The system was eventually scrapped.

There are several reasons that students put off meetings. One is that they are afraid to front up to a lack of progress. They feel that the faculty are going eat them. And as one student pointed out "The longer I go without calling a meeting, the harder it becomes." Despite this reluctance, however, required meetings are in the best interests of students because they force students to front up earlier, when it's easier to solve the problem.

Another reason stems from cultural and gender differences in communication style. George Rossman, the executive officer for GPS, noted that in general, Asian students were less likely to actively engage the faculty in informal conversations about research. That's consistent with Eastern culture, where the professor is supposed to be treated like a God. Regularly scheduled meetings would help to start breaking down the perceived barrier between student and faculty.

It's often difficult for students to schedule meetings. I was told of my candidacy exam that if I could schedule it I was more than halfway to passing it. This problem can be alleviated by allowing students to meet with their committee members individually, but that isn't such a good solution if what is wanted is a unified plan of what the thesis should look like. Instead, what is needed is a departmental expectation of committee meetings, so that the scheduling is not left till the last minute.

Finally, some students feel like it's unnecessary to have a meeting until a problem arises. The students who will actually call a meeting when they see a problem are the ones who wouldn't really need regular meetings. Their primary benefit would be simply be increased faculty contact and more options for letters of reference.

Among those divisions that already have committees, there was a definite feeling that they were worthwhile, even if sometimes they were a pain in the ass. They help build student-faculty and faculty-faculty relationships and they do provide a mechanism to deal with problems. They are possible to schedule, and they do help keep students on track.

What I want out of today's meeting is for every option without committee guidelines in place to adopt at least some of our recommendation. The first question to ask is how can it be tailored to suit the needs of individual options? There are all sorts of possibilities that can be considered. In options in which the students give seminars, a committee meeting could consist largely of a student talk followed by discussion with the committee afterward. A meeting every year may be considered too much, but a fourth year meeting, such as in Chemistry, may be very useful. Certainly, I think that every option has a need for some kind of meeting between candidacy and defense.

The next step is to update the catalog. Catalog updates are due April 11, so now is a good time to be discussing this. Even options with committees should review their entries because often the catalog entry does not match what is practiced.

Implementation will require us to be proactive. The new catalog requirements would phase things in with the new students. Faculty support would be needed to create an expectation of yearly meetings; this can be through simple things such as saying "see you next year" at the end of candidacy. Filing the written progress report would also be a good way of monitoring the program.

Raising faculty awareness would be helped by a presentation to the faculty board or to each option's faculty meeting.

An important step in the process is to assess the impact of changes made. The GSC and WEST will conduct a survey in May that can act as a baseline, a follow-up survey in 4-5 years, once the new students are moving through the system, can provide us with a comparison.

Finally, the graduate student council is willing to put in effort to make this work. We can work with individual options to come up with a plan tailored for the needs of the option, and we're willing to do PR work with students.

Now, I'd like to open things up to discussion. I'd like to get feedback about the presentation and I'd like to know what you'd be willing to move ahead with. I'd also like a chance to address any concerns that you have.

# Thesis Advising



GSC presentation to the  
Graduate Studies Committee

12 February 2003

## Special Thanks

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- Parandeh Kia, Assistant Dean of Graduate Studies
- Helen Hassenfeld, Ombuds Office
- Michael Hoffman, Dean of Graduate Studies
- Faculty Option Reps
- David Goodstein, Vice-Provost
- Richard Murray, E&AS Division Chair
- Marianne Bronner-Fraser, Chair of Faculty Board
- MIT GSC

## Why Thesis Advising?

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- 1997 quality of life survey highlighted advising problems
- 2001 GSC survey revealed a few ongoing conflicts
  - “[My advisor] conned me into trying to prove his iconoclastic pet theory and refused to admit that the line of work was a dead end”
  - “Individuals are allowed to take a leave of absence to start a company for the advisor and are awarded with a PhD, on time, when they return.”
  - “Advisor decided to start a company and virtually disappeared from campus. Numerous promises with respect to involvement, meetings, availability, etc. were never fulfilled.”

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## Aspects of Thesis Advising

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- GSC exit surveys
  - 32% felt advisor was “ineffective” or “very ineffective” at laying out plan for thesis
- Students falling through cracks
  - Fourth-year students without advisor!
  - Excessive registrations
- Some faculty feel students not working
  - Need mechanism for accountability
- Defense committee should have input to thesis
  - Many students first show thesis to committee two weeks before defense
- Ombudsperson on student-advisor problems
  - “Regardless of the type of problem, the overriding concern is that the student did not have a second or third person to turn to.”

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## Recommendation

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### Thesis advising committee

- Three faculty
- Advisor is not chair
- Yearly meetings (1 hour) during research time
- Student writes summary of progress beforehand
- Set goals for coming year

### Thesis planning meeting

- Student meets with committee
- May meet again while drafting/writing thesis

Ideas from divisions (GPS & Bio), ombuds office, assistant dean of graduate studies, EE option rep, past option reps, and practices at MIT and Cold Spring Harbor Laboratory

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## Goal

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### Improve effectiveness of thesis advising

#### Discuss research goals and progress

- Identify causes of lack of progress
- Discuss evolution of thesis
- Improve normative time

#### Promote discussion of research

- Breadth of input to research
- Letters of reference

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# Goal

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- Improve experience for students
  - Clearer goals
  - Build relationships with faculty
  - Less dependent on one person
  - Accountability of advisor
- Improve experience for faculty
  - Clearer yearly goals -> more focused students
  - Shared mentoring
  - Accountability of student

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# Responses

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- Time burden?
  - Strong feeling that it's worthwhile
- Students have the option to call meetings, yet they don't
  - Afraid to front up to a lack of progress
    - "Why should I schedule my own execution?!"
    - "The longer I go without calling a meeting, the harder it becomes"
  - Doesn't seem necessary until it's too late
  - Cultural and gender differences in communication style
  - Easy to put off
  - Difficult to schedule
- Builds student-faculty and faculty-faculty relationships
  - More options for problem-solving
  - Wider application of research

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## Moving forward

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- Consider recommendation – how can it be tailored?
- Update catalog entry
- Implementation
  - Phase in with new students
  - Requires faculty support and initiative to create an expectation of yearly meetings
  - Presentation to faculty board/meeting in May
- Follow up survey by Graduate Student Council and WEST
  - Baseline survey in May
  - Follow up survey in 4-5 years to assess/improve effectiveness
- Graduate Student Council willing to consult with individual options, do PR with students

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## Catalog Aero-Astro

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### Aero

- Initial course advisor
- Three faculty committee formed after MS, should meet three times in final year (student's responsibility)

### Applied and Computational Math

- Three faculty committee formed after candidacy, chair is not advisor
- Informal meetings at student's discretion are encouraged

### Applied Mechanics

- Three faculty committee formed after admission to PhD
- Committee must meet first and third terms every year

### Applied Physics

- No written policy

### Astronomy (rotations)

- After candidacy, student and advisor must submit annual progress reports to the Executive Officer

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# Catalog Biochem-Chem

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## Biochemistry and Molecular Biophysics (rotations)

- Candidacy committee becomes thesis and defense committee, meets once a year

## Bioengineering

- No written policy

## Biology

- Committee of four or five faculty, thesis advisor is not chair
- Meetings at start of study and when needed / regular intervals

## Chem E

- Candidacy committee becomes thesis review committee
- Meets before fall registration each year
- Student submits two to three page written progress summary beforehand

## Chemistry

- Committee of four faculty, meet at start of fourth year to review progress

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# Catalog Civil-ESE

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## Civil Engineering

- Committee of three faculty, meet in first and third terms each year

## CNS (rotations)

- No written policy

## Computer Science

- Student is encouraged to meet regularly with faculty

## CDS

- Initial course advisor
- Three faculty committee formed after candidacy, should meet at least yearly

## Electrical Engineering

- Members of candidacy committee serve as second or backup mentors
- Regular meetings with faculty encouraged

## Environmental Science and Engineering

- Four faculty committee formed after qualifiers, should meet at least yearly

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## Catalog GPS-Physics

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### GPS (rotations)

- Academic advisor
- Committee of four or more faculty, meet at least once a year

### Materials Science

- Each student has a faculty mentor, with whom they meet at least yearly

### Mathematics

- Each student has a faculty mentor

### Mech E

- Committee of three faculty, meet first and third terms each year
- Three faculty committee formed after candidacy, should meet at least yearly
- Advisor is chair of committee

### Physics

- No written policy

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## Catalog Social Science

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### Social Science

- Committee meets at instigation of advisor
- Co-advisor appointed to vouch for quality of work
- Student should keep committee informed of progress
- Progress evaluated by advisor and Dean of Grad Studies after each term of 4<sup>th</sup> and 5<sup>th</sup> years

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