Master of Engineering Committee Meeting  
April 14, 2004  8:00 – 9:00am  
240 Carpenter Hall


Guests: Patty Apgar, Karen Biesecker, Scott Coldren, Mark Turnquist

Absent: Bing Cady, Jim Jenkins

Jim Bartsch called the meeting to order at 8:05am.

Approval of March 2004 MEC Minutes:
The March 10, 2004 MEC minutes were approved as submitted.

Creating a New Degree Designation for the M.Eng. Program:
Mark Turnquist:
We would like to propose the creation of a degree designation Master of Engineering (Engineering Management) offered by CEE. The degree would be classified as “Interdisciplinary Studies in Engineering,” for authorization by the State DOE.

The Engineering Management Option began in 1988, and over 400 students have graduated with the option. They receive a Master of Engineering (Civil) degree, even though the requirements for the Engineering Management option are different from the requirements for the “design options” within the field. The background of these graduates shows that less than ½ are CEE majors. The curriculum includes a core of 3 required CEE courses, a financial elective generally taken through JGSM, a behavioral elective generally taken through JGSM or ILR, 3 technical/managerial electives generally taken through Engineering or JGSM, and a project supervised within CEE.

These students come from a variety of disciplines; the jobs they apply for aren’t necessarily CEE-related positions. It makes sense to us that a separate degree designation be created for this program. This is not a proposal for a new field, no financial implications are anticipated, and we’re not proposing any changes in administrative effort, teaching load or facilities. It is a separate designation on an M.Eng. degree.

Because this is a new degree as far as the Graduate School and the State are concerned, there are numerous steps to be taken. We are currently at step 4 - seeking the MEC’s approval. Next we take it to the Graduate School’s General Committee, then on to the Faculty Senate, the Provost’s Office, the Trustees and finally to the State DOE.

Mark Eisner:
I don’t see the Dean or the Directors & Chairs in your steps.
Mark Turnquist:
I’ve met with the Dean and he’s supportive. Because it’s a graduate field, it
doesn’t typically go through the Directors & Chairs for approval.

Mark Eisner:
I’m surprised a degree can be offered by the COE without the approval of the
Directors & Chairs.

Mark Turnquist:
The offering of degrees is a matter governed by the Graduate School, but if you
feel it should go before the Directors & Chairs, we will add that step.

Graeme Bailey:
Since this degree includes the word “Management,” have you discussed this with
other fields on campus that offer degrees that include the word Management?

Mark Turnquist:
Not yet. I need to talk with Joe Thomas from the Johnson School, someone from
Applied Economics & Management (AEM), and someone from the Hotel School.

Mark Eisner:
You could experience accreditation issues. If I remember correctly, the Johnson
School’s accreditation hinged on clarifying the issue of AEM’s program status.
When the accreditors evaluated JGSM’s program, they required clarification on
the other management programs offered at the University.

David Grubb:
This is for Engineering Project Management. The more narrowly you define the
program, the fewer problems you’ll encounter.

Mark Eisner:
How many students in the Program view it as managing engineers as opposed to a
management program?

Mark Turnquist:
The bulk of the students view it as a way of gaining a set of skills for doing
project management, and often project management including technical content.
There are a significant number of students who work after their M.Eng. program
and then go on to get their MBA. Several go to work for management consulting
firms, and graduates of this program are more skilled for managing a team and
understanding the human dynamics. I don’t know if students are viewing it as a
substitute for a general management degree.

Larry Cathles:
There must be a similar need for this sort of designation in other areas of
Engineering, in addition to CEE. How will that be handled? Do you envision
parallel programs in ECE Management?

Mark Turnquist:
The Program is constructed in a way that a student with a background in ECE fits
as well as a student with a CEE background. The project activities aren’t
necessarily CEE projects. Several of the projects relate to manufacturing
companies, public agencies, as well as a software development project -- there’s a
broad range of project ideas available. Students choose their electives to
complement their disciplinary strength. For example, an ECE student may take
their Technical Management Electives in ECE to complement their technical strengths. The Program is designed to not focus too strongly on CEE students.

Claude Cohen:
Will this have an impact on the Management Option Dean’s Certificate?

Mark Turnquist:
That’s a minor -- this has no impact. This is a designation of the degree for students majoring in Engineering Management.

Mark Eisner:
My concern regarding this proposal is directed at the “Rationale for the Separate Degree” section of your proposal. The first sentence reads, “The Engineering Management option was developed to meet a need that was not being filled by other M.Eng. degrees nor by the MBA...” and it goes on to describe the program that I have been running in ORIE for the past 7 years. I know my colleagues will be concerned about having a degree designated this way that appears to offer essentially what we do. Your proposal may bring someone from OR back to this meeting with a request to go to the State for degrees in Financial Engineering, Information Sciences, and Quantitative Marketing. I think this is a dangerous direction for us to head – to move away from our base disciplines in how we label our degrees. I don’t see this as competition, because ORIE students already have the Engineering Management Option available to them. – I think this needs to go back to our departments and eventually be dealt with by the Directors and Chairs.

Mark Turnquist:
The degree labels should be appropriate for what the students have learned, and this is the appropriate label for this degree. If faculty within OR want a Financial Engineering degree, this committee should look at that proposal to see if it makes sense.

Mark Eisner:
We’ll be talking about all kinds of specialized names for degrees within our M.Eng. Programs, and I’m not sure we want to go down that slope.

Matt Miller:
From the prospective of the student viewing CEE’s program, Management may not come to mind immediately. I think the idea here is to adjust the picture the student would get from bridges. In OR, the options-terminology seems to fit – it makes sense. I see it as punctuation or a clarifier of what CEE offers.

Larry Newman:
I agree with Matt, and I think it’s a matter of clarification for people outside of CU. I think it’s the same type of clarification we decided on 40 years ago when the M.Eng. Program was created.

Larry Cathles:
I agree that it’s important to label degrees for what they are. My question is, how many of these Management-type sub-designates will we have within the M.Eng. Program? Should we offer one Management Program degree as opposed to several? It’s best to think it through ahead of time.
Graeme Bailey:
I’m almost certain that there will be active discussion within the Graduate School’s General Committee if CEE offers the Engineering Management curriculum, and there are aspects of that offering in several other fields. The Graduate School may see it as being more beneficial, for the Engineering Program as a whole, to offer one Engineering Management curriculum.

As far as the Graduate School is concerned regarding this proposal, they will want to see the current essence of the ideas you have from the Engineering disciplines to create an engineering-focused management program. Unless that comes forward with strong support from the various disciplines, it will come back to you.

Jim Bartsch:
Normally we would take this type of information back to our departments for discussion. The MEC is scheduled to meet again on May 12th -- should we schedule a vote on it for the next meeting?

Graeme Bailey:
The General Committee meeting will be on May 10th, and there probably won’t be another meeting until the fall semester.

Jim Bartsch:
If it’s taken to the Graduate School, is that for vote and approval? I don’t want to put us in a position of having to “rubber stamp” it for approval after the Graduate School has approved it.

Mark Turnquist:
This shouldn’t go to the Graduate School until we have a solid sense of agreement from this College. If this Committee wants to discuss it again in mid-May, we should do that.

Jim Bartsch:
Is it our recommendation that the Directors & Chairs should review the proposal to see if it makes sense for an M.Eng. Program?

Larry Cathles:
I believe the judgment this Committee needs to make is that it fits logically within the M.Eng. Program. The things we need to address are:
- Does it grow well into the future?
- Is it a logical step to take?
- Could it be broadened and strengthened?
- How does it fit within the other programs, and are people happy about it?

Jim Bartsch:
It sounds as though a majority of our May meeting will revolve around this program. Let’s take it back to our respective programs for feedback.

Mark Eisner:
I think Graeme has offered a powerful idea. Speaking personally, CEE might want to make this a broader activity that reflects all of engineering and fits well with the rest of the things we do.
Mark Turnquist:
In part, that’s what we’ve been doing for the last 16 years. We’re trying to be a Program that appeals to students from a variety of disciplines. As a matter of administration, CEE agreed to do that, but this is one of the College’s degree offerings.

Jim Bartsch:
We’ll bring it back to this Committee on May 12th, and Professor Turnquist will join us again then.

**DSpace - Final Version:**
Graeme Bailey:
The Graduate School has implemented this DSpace project for the electronic submission of graduate theses and projects. The submission date is slightly earlier for electronic submission than for the traditional submission. The DSpace system is the same for M.Eng. as for Ph.D. The primary issues are:
- Cautionary notes to students working on team projects – all team members need to agree to submission on line.
- Sensitive/Commercial data can be handled in two ways. The standard system operates as an “open community” and the submitted data is available to everyone. “Closed communities” are designed for individuals who may choose to publish their work at some point in the near future. They are closed for up to 5 years with the possibility of renewal.

Mark Eisner:
There’s a logistical issue regarding payment – the sponsor pays for printing, in most cases. This option needs to be listed. Also, Ph.D. and M.Eng. recipients might want more than 2 copies -- an option for additional copies is needed.

Jim Bartsch:
Graeme will submit those requests for changes to the Graduate School.

**M.Eng./PeopleSoft Nomenclature:**
Mike Hayes:
PeopleSoft (PS) will be implemented in F’05 on the student side. Several discussions will be held in the meantime to discuss our terminology differences. PS nomenclature isn’t consistent with the Graduate School’s “Fields, Concentrations & Subjects” list nor with the M.Eng. Options. Over the next 6-8 months, you’ll be hearing about these changes.

John Belina:
How much of this change will be seen by students on the outside?

Mike Hayes:
The outside world will see minimal changes -- mostly seen internally.

Graeme Bailey:
When we teach undergraduate courses on database creation, we accentuate the importance of creating a database that meets the needs of the client. Renumbering and re-labeling could lead to the failure of courses to be recorded properly.
**ITADP Program Update for M.Eng. Students:**

Mike Hayes:

We discussed the ITADP problems last month, and we’re making progress on resolving the problem. We were granted an exemption from the Graduate School for this academic year, but all of the exemptions were pulled for 2004-05. Technically, all international M.Eng. students who will have contact with students (in the capacity of a Graduate Teaching Research Specialist (GTRS)) should be enrolled in the summer program offered by ITADP.

We are currently reviewing the materials from the COE’s TA Development Program to determine how to incorporate the language and language skill mastery materials so our international GTRS students won’t have to come to campus a week before classes begin (a $500 stipend would have to be paid to each student which would come out of departmental budgets). I hope to have this resolved in the next 2-3 weeks. Last year 29 students didn’t get screened (a $15,000+ stipend expense) -- we’re hoping we can hire someone to teach the language materials for us.

If you want the international GTRS in the classroom on day one, you should enroll them in the ITADP program.

Graeme Bailey:

Cost isn’t the sole problem – visa issues could be a big problem.

Larry Cathles:

What is driving this, is it a matter of Federal legislation?

Mike Hayes:

This is a Provost mandate that all international TAs/GTRS’ will go through this program. We got the exemption for M.Eng. TAs last year based on the assumption that we were offering language skills, and we weren’t.

Students with more than 3 years of study in the US are exempt from the training, but they need to be screened. Screening will be built into our TA Training Program. We are currently composing a program that contains 21 hours of language training.

**Student Petition OR&IE:**

Mark Eisner:

Our petition is for a student who graduated from the University of Toronto in 1999 – she was there for 9 years as a Materials Science student. She’s been in industry for 5 years working for Inland Steel. She says her record at school was poor due to personal issues, and the letter of recommendation by an Emeritus Faculty confirms her undergraduate issues and indicates that she has the capability. I’m not pushing this petition; I’m looking for guidance from this Committee. I’m a little concerned that she may not have sufficient academic underpinnings to succeed. She seems serious and her experience would be valuable to us. I’ve never come forward with a petition for a student with a GPA below 2.7, but I’m wondering whether to make an exception in this case. She has
both management skills and a background from Materials Science. We’re not fond of Conditional Admits for international students due to visa implications; we would rather do a Provisional Admit requiring a B average at end of her 1st semester.

Claude Cohen:
Can she finish in 1 year?

Mark Eisner:
I’ll look at it, but I think so.

Larry Cathles:
If you’re willing to admit her, I would suggest that she be advised that she may find it tough academically, and you’d like the option of reviewing her program at mid-point. However, if you’re enthusiastic about having her in your program, I think that’s what this program is for.

Larry Newman:
I recommend that we approve her petition. The MEC unanimously approved the petition.

**Student Petition ME:**
Matt Miller brought forth a petition for a ME Early Admit student, but the MEC determined that the situation could be handled in-house and the petition was withdrawn.

**Student Petition MS:**
David Grubb:
Our student doesn’t meet the 2.7 minimum GPA requirements -- she has a 2.68 GPA. She graduated from Cornell last December, and she’s currently an Americorp member. We feel that she’s very bright, and I’d like to give her an opportunity to do the M.Eng. Program in MS based on a Provisional Admit with a B average or better required at the end of her first semester. The MEC unanimously approved the petition.

**Student Petition CEE:**
Fred Kulhawy:
Our petition is very similar to David Grubb’s. This student’s overall GPA is a little under 2.7 as a result of one bad semester. Her GREs are respectable, and she has impressed enough of the faculty that they would like to Provisionally Admit her with no less than a B- in her first semester. The MEC unanimously approved the petition.

**Symposium Highlights:**
Mark Otis:
Thanks to all who attended. We had 28 posters presented, and 3 oral presentations. Attendance was about the same as in the past, but we used the space differently, which made it appear sparse. Faculty involvement needs to be increased. We will update the web site soon with photos, etc.

The meeting adjourned at 9:13am.