

**The University of Michigan
College of Engineering
Curriculum Committee**

Agenda

April 15, 2003

1:30-3:30 p.m.

GM ROOM

Fourth Floor Lurie Engineering Center

1. Approval of Minutes from April 1, 2003 Meeting
 2. Change in CHEM 125/126 listing – Information Only
 3. SGUS Degrees in Macromolecular Science and Engineering and Plastics Engineering – Continued Discussion
 4. Course Approval Forms
 5. HU/SS – Jeanne Murabito
-

**University of Michigan
College of Engineering
Curriculum Committee Meeting
Tuesday April 1, 2003
1:30-3:00 p.m.
Lurie Engineering Center GM Room
Minutes**

Armin Troesch called the meeting to order at 1:40 p.m.

Members Present: A. Troesch, J.Fessler, P. Friedmann, , G. Herrin, J. Holloway , G.Hulbert, H. Peng, R. Robertson, P. Samson , S. Takayama

Members Absent: V. Chung W. Hansen (CEE), S.Montgomery (ChE), S. Pang, G.Tyson (EECS)

Guests: Melissa Eljamal, David Martin, Kathleen Vargo, Roy Rogers

Motion to approve the minutes of the last meeting

Jeff Fessler noted that under EE Degree Program Change it should read: **EECS 496 is required . . . 496** was added after EECS.

The minutes of the last meeting were approved

Course Approval Forms: ENGR 301; ENGR 591 – Melissa Eljamal

Presentation by Melissa Eljamal from the Office of International Programs in Engineering of the College of Engineering. She passed out copies of course approval forms for ENGR 301 and ENGR 591, two Study Abroad Courses, and a handout regarding this program. She noted that in the past, Study Abroad had a course approval form for each Study Abroad Location. She is now suggesting an alternate model for this, which is submitting one course number for those undergraduate students wishing to study abroad, with sections under that dedicated to the International Program's approved study abroad destinations, with a mirror image of this at the graduate level.

Students are encouraged to not take courses in their major, to talk with their program advisor to find out to what extent technical electives might be considered as meeting degree requirements, and are encouraged to take some Humanities and Social Science courses. Melissa stated that the College is averaging about 40 undergraduate students a year going overseas and less than a half dozen for graduate students.

Popular places for Study Abroad are: England and Australia, which the Program has 5 institutions, since English is spoken in those countries.

Armin Troesch asked if they plan to replace all the Study Abroad Courses listed in the Engineering Bulletin with just one course, with descriptions of the various programs under the sections.

SGUS Degrees in Macromolecular Science and Engineering and Plastics Engineering – David Martin

David Martin, the Director of Macromolecular Science and Engineering, passed out some information regarding the **Sequential Graduate/Undergraduate Study (SGUS) in Macromolecular Science and Engineering and Plastics Engineering.**

This is an interdisciplinary and inter-collegiate program in Polymer Science Engineering at the University of Michigan. It has been here since the late 60's, started in 1969. offering Masters and PhD degrees since 1971 The program itself has been modified in recent years, they introduced a Masters of Engineering Degree in Plastics Engineering in 1999, and just this year, a Masters in Science Engineering in Macromolecular Science and Engineering in addition to the Masters of Science degree. Students in this program typically come from Material Science, Chemical Engineering, Mechanical Engineering, Bio-Medical Engineering., Chemistry, Physics, and Nuclear Engineering.

They feel that they would do a better job by attracting more undergraduate students here at The University of Michigan, from The College of Engineering and LS&A.

There are no new degrees, they are only asking to do a SGUS template.

Armin Troesch wanted to know how many SGUS programs they are asking for. David Martin said Three. Two that would be Macro-Molecular science, and one that would be for Plastics Engineering. Armin asked if this would be the first SGUS program in M ENGIN.

Jeanne Murabito asked for signatures of the involved departments.

It was decided to put this on the agenda for the next meeting.

Change in CHEM 125/126 listing – Information Only

Information was passed out regarding the up-coming changes to CHEM 125/126.

CoE Bulletin 2002-03 HU/SS Requirement – Kathleen Vargo, Roy Rogers

Kathleen Vargo, from the Engineering Degree Progress Office and Roy Rogers from the Engineering Advising Center gave a presentation regarding the HU/SS Requirement. They handed out a memo regarding the Humanities/Social Science Requirement. This requirement was worked on previously in the CoE Curriculum Committee with Professor Washabaugh.

Kathleen noted that of all the requirements within any of the programs, this is the most difficult for the students to grasp and causes the most questions. Some of the courses that students are questionable, i.e. some students are using Architecture and dance courses for this requirement. Kathleen said that there are a large quantity of petitions being submitted for exception to College Rules.

She noted that maybe the wording should be changed to include the spirit of the requirement. Armin Troesch noted that it makes sense to go back and revisit these rules to see if these guidelines are working. He also noted that it seems that advisors need some guidance regarding this.

Policies for Bulletin Inclusion – Jeanne Murabito

Jeanne Murabito gave a presentation regarding rules and procedures that have come across from either the recruitment office, or the ECRC (Career Center). All that is being done is changing words on these. The first one has the word **Residency** in it and it really is that students are re-registering (coming back). She would like to drop the word Residency and put in: **Previously know as residency policy**. This is in the current bulletin on page 21. The next one is on page 23 of the bulletin under Readmission. It states that the College will refer a student who withdrew for health reasons to health services. This is incorrect as the College has no way of knowing if the student is leaving because of a health reason. She would like to take this out since it is not accurate. The last one is on page 60. There is wording regarding co-op education. The only thing missing is **full time students**. A student may not elect co-op unless they are a full time student.

Jeanne noted that this was the due date for all the last revisions for the departments and she has not received them all yet. There is a small window—the final date that the revisions are due will be May 1.

There are several changes that may have to be made to the Sample Schedules. If so, the departments are asked to bring these to the next CoE CC Meeting. Any other small revisions that need to be made need to come to the Committee.

Armin asked for a vote on each Program. The Nuclear Engineering program has already been approved. Armin asked that Naval proposed Program changes be approved. These are: Changing 4 hours in Thermal Science to: **3 hours in Thermal Dynamics**, and **adding 1 credit hour to the 9 credit hours of un-restricted electives bringing the total to 10 credit hours**.

Jeanne Murabito asked for a vote to approve the Policy changes for the Bulletin.

Armin Troesch called for a motion to approve the edits for the Bulletin.

This was moved and seconded.

Motion Carried (approved)

Armin Troesch asked for a motion to approve the Naval Arch changes: **changing the Physics and Chemistry to 5 credit hours, and the appropriate change for Mechanical Thermal Dynamics**.

This was moved and seconded.

Motion Carried (approved)

Course Approvals

Tabled Courses: ENGR 301
ENGR 591

New Course
New Course

Armin Troesch called for a motion to approve the following courses. This was moved and seconded.

Motion Carried (approved)

AERO 215 Modification – Changed Course Number from 285; Changed Title; Changed

Course Description; Changed Prerequisites from: Preceded by Math 215 and MSE 220. Preceded or accompanied by Aero 245. **to: Preceded by MATH 216 and MSE 220. Preceded or accompanied by AERO 245;** Changing Contact hrs/wk from 5.0 **to: 4.5.** AUTO 503 Modification – Changed Course Description; Changed Level of Credit from: Non-Rackham Grad and Undergrad or Rackham Grad **to: Non-Rackham Grad.**

EECS 584 (X-Listed with CS 584) Modification – Changed Course Description; Changed Credit hours and Contact Hours from: 3 **to: 4.**

ENGR 302 Modification – Changed Course Title; Changed Course Description

ENGR 401 (X-Listed with MFG 401) Deletion

IOE 623 (X-Listed with MATH 623) **MATH HOME DEPT.** New Course

MFG 503 (X-Listed with OM 703) Modification – Changed Course Description; Changed grading from S/U **to: A-E**

Adjournment: Motion to adjourn was made and seconded
Motion carried (approved)

Next Meeting

Tuesday, April 15, 2003

1:30-3:30 p.m.

GM Room-LEC



COURSE APPROVAL REQUEST FORM

UNIVERSITY OF MICHIGAN

College of Literature, Science, & the Arts
Rackham School of Graduate Studies

To : LSA Curriculum Committee
2522 LSA Bldg 1382

or Course Approval Officer
1004 Rackham 1070

Action Requested:

- Deletion of Existing Course
 Modification of Existing Course
 New Course

For Office Use

Received
3/27/2003
Office of the Dean
College of LS&A

Date of Submission: 3/27/2003

Effective Term: Fall 2003

CURRENT LISTING		REQUESTED LISTING	
Home Department		Home Department (Owner)	
<input type="checkbox"/>	Subject (Division) Course Number	Chemistry Subject (Division) Course Number Chem 125	
Cross-listing (if applicable)		Cross-listing (if applicable)	
<input type="checkbox"/>			
<input checked="" type="checkbox"/>	<p>Course Title General and Inorganic Chemistry: Laboratory Title Abbreviations</p> <p>Transcript (20 char) <input type="text" value="Gen Inorganic Lab"/> Time Sched (19 char) <input type="text" value="Gen-Inorganic-Lab"/></p>	<p>Course Title General Chemistry Laboratory I Title Abbreviations</p> <p>Transcript (20 char) <input type="text" value="Gen Chem Lab I"/> Time Sched (19 char) <input type="text" value="Gen Chem Lab I"/></p>	
<input type="checkbox"/>	Course Description	Course Description (Limit to 50 words) One four-hour laboratory and one discussion. Basic laboratory techniques and applications to simple chemical systems.	
<input checked="" type="checkbox"/>	<p>Prerequisites To be elected by students who are eligible for (or enrolled in) CHEM 130. No credit granted to those who have completed CHEM 211.</p>	<p>Prerequisites (Advisory) No credit granted without concurrent enrollment in and completion of CHEM 126. To be elected by students who are eligible for (or enrolled in) CHEM 130. No credit granted to those who have completed CHEM 211. I, II, IIIa.</p>	
<p>Distribution Comp/LR R&E/QR</p> <p><input type="checkbox"/> HU <input type="checkbox"/> MSA <input type="checkbox"/> Excl <input type="checkbox"/> R&E <input type="checkbox"/> NS <input type="checkbox"/> CE <input type="checkbox"/> Intro.Comp. <input type="checkbox"/> QR1 <input type="checkbox"/> SS <input type="checkbox"/> ID <input type="checkbox"/> LR <input type="checkbox"/> QR2</p>		<p>General Requirements</p> <p>You MUST include a supporting statement. See Guidelines for specific requirements: http://www.lsa.umich.edu/dean/lsg/index.html.</p> <p>Distribution Comp/LR R&E/QR</p> <p><input type="checkbox"/> HU <input type="checkbox"/> MSA <input type="checkbox"/> Excl <input type="checkbox"/> R&E <input type="checkbox"/> NS <input type="checkbox"/> CE <input type="checkbox"/> Intro.Comp. <input type="checkbox"/> QR1 <input type="checkbox"/> SS <input type="checkbox"/> ID <input type="checkbox"/> LR <input type="checkbox"/> QR2</p>	

COURSE APPROVAL REQUEST FORM

Page 2



Chem 125

3/27/2003

Modification of Existing Course

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<p>General Course Information</p> <p>Print the course in the LSA / Rackham Bulletin? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Print the course in the Time Schedule? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Print the course instructor in the Time Schedule? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Expected Class Size: <u>900</u></p> <p>Instructor Name <u>varies</u> Official Title _____</p>																																									
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cc <u>P. Rinker</u> Date <u>4/1/2003</u> xc _____ rack _____																																									

COURSE APPROVAL REQUEST FORM

Page 3



Chem 125

3/27/2003

Modification of Existing Course

Supporting Statement

As you know, UM has been under pressure to respond to its lack of a "4+4" course undergraduate chemistry program that meets the policy statements written by the majority of medical school admissions programs in the US.

I have conducted an informal telephone and e-mail survey of medical admissions Deans, and it turns out that medical admissions practices do not map onto their policies. Many of these "4+4" guidelines were written in the early 20th Century, and have not kept pace with the curricular practices of most institutions that produce the largest numbers of medical school candidates. Students with competitive records presenting non-traditional transcripts may actually constitute the majority of students admitted to US medical schools! The written policies allow the medical schools a terribly convenient "out" when declining less competitive candidates from non-"4+4" programs, permitting them to state that a student has not fulfilled the admissions requirements. As a result, nearly all UM undergraduates who applied to medical schools since we introduced our new program in 1989 have not had any problems with their admissions. At the margins, however, there have been students with non-competitive applications who have received rejections, and perhaps even fewer who have applied to schools whose practices match their policies.

That said, we respect the politically uncomfortable position that UM is currently in regarding our program. Our proposed solution is to take the current 2-credit Chem 125 (General Chemistry lab) and divide it into two half-semester courses with different titles and numbers. Student transcripts will reflect a prima facie compliance with the "4+4" policy statements of the medical schools. The course content in the new Chem 125 and 126 courses will be exactly the same as the current Chem 125 course. To the extent that we are able, we intend to require that students complete both or neither so as not to introduce too many administrative burdens to the teaching staff in this laboratory program. (See attached document titled "Meeting the '4+4' premedical admissions requirements at UM.)

Fill in only if you are adding a new discussion section to be led by a GSI. You MUST provide a statement justifying this request. Approval of the course does NOT imply approval for the required funding for GSIs. If approved, the request must then be submitted to the LSA Budget Office as usual.

GSIs

Requested FTE



COURSE APPROVAL REQUEST FORM

UNIVERSITY OF MICHIGAN

College of Literature, Science, & the Arts
Rackham School of Graduate Studies

To: LSA Curriculum Committee
2522 LSA Bldg 1382

or Course Approval Officer
1004 Rackham 1070

Action Requested: <input type="radio"/> Deletion of Existing Course <input type="radio"/> Modification of Existing Course <input checked="" type="radio"/> New Course	For Office Use Received 3/27/2003 Office of the Dean College of LS&A	Date of Submission: 3/27/2003 Effective Term: Fall 2003
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CURRENT LISTING	REQUESTED LISTING
Home Department Subject (Division) _____ Course Number _____	Home Department (Owner) Chemistry Subject (Division) Chem Course Number 126
Cross-listing (if applicable)	Cross-listing (if applicable)
Course Title Title Abbreviations Transcript (20 char) _____ Time Sched (19 char) _____	Course Title General Chemistry Laboratory II Title Abbreviations Transcript (20 char) Gen Chem Lab II Time Sched (19 char) Gen Chem Lab II
Course Description	Course Description (Limit to 50 words) One four-hour laboratory and one discussion. Basic laboratory techniques and applications to simple chemical systems.
Prerequisites	Prerequisites (Advisory) No credit granted without concurrent enrollment in and completion of CHEM 125. To be elected by students who are eligible for (or enrolled in) CHEM 130. No credit granted to those who have completed CHEM 211. I, II, IIIa.
Distribution Comp/LR R&E/QR <input type="checkbox"/> HU <input type="checkbox"/> MSA <input type="checkbox"/> Excl <input type="checkbox"/> R&E <input type="checkbox"/> NS <input type="checkbox"/> CE <input type="checkbox"/> Intro.Comp. <input type="checkbox"/> QR1 <input type="checkbox"/> SS <input type="checkbox"/> ID <input type="checkbox"/> LR <input type="checkbox"/> QR2	General Requirements You MUST include a supporting statement. See Guidelines for specific requirements: http://www.lsa.umich.edu/dean/ug/index.html . Distribution Comp/LR R&E/QR <input type="checkbox"/> HU <input type="checkbox"/> MSA <input type="checkbox"/> Excl <input type="checkbox"/> R&E <input checked="" type="checkbox"/> NS <input type="checkbox"/> CE <input type="checkbox"/> Intro.Comp. <input type="checkbox"/> QR1 <input type="checkbox"/> SS <input type="checkbox"/> ID <input type="checkbox"/> LR <input type="checkbox"/> QR2

COURSE APPROVAL REQUEST FORM

Page 2



Chem 126

New Course

3/27/2003

<input type="checkbox"/> <p>Class Components (Section Types)</p> <p><input type="checkbox"/> LEC <input type="checkbox"/> REC <input type="checkbox"/> SEM <input type="checkbox"/> LAB <input type="checkbox"/> DIS <input type="checkbox"/> IND <input type="checkbox"/> Other...</p>	<p>Class Meeting Hours per Week</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Graded Component (for Grade Sheet)</p> <p><input type="checkbox"/> LEC <input type="checkbox"/> REC <input type="checkbox"/> SEM <input type="checkbox"/> LAB <input type="checkbox"/> DIS <input type="checkbox"/> IND</p>	<input type="checkbox"/> <p>Class Components (Section Types)</p> <p><input checked="" type="checkbox"/> LEC <input type="checkbox"/> REC <input type="checkbox"/> SEM <input checked="" type="checkbox"/> LAB <input type="checkbox"/> DIS <input type="checkbox"/> IND <input type="checkbox"/> Other...</p>	<p>Class Meeting Hours per Week</p> <p>1 hpw for 7 wks</p> <p>_____</p> <p>4 hpw for 7 wks</p> <p>_____</p>	<p>Graded Component (for Grade Sheet)</p> <p><input checked="" type="checkbox"/> LEC <input type="checkbox"/> REC <input type="checkbox"/> SEM <input type="checkbox"/> LAB <input type="checkbox"/> DIS <input type="checkbox"/> IND <input type="checkbox"/> Other...</p>																																				
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<input type="checkbox"/> <p>Is the course repeatable for credit? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, state maximum times it can be elected: _____</p> <p>If yes, state maximum total credit hours: _____</p> <p>If yes, can it be elected more than once in the same term? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<input type="checkbox"/> <p>Is the course repeatable for credit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, state maximum times it can be elected: _____</p> <p>If yes, state maximum total credit hours: _____</p> <p>If yes, can it be elected more than once in the same term? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>																																								
<p>General Course Information</p> <p>Print the course in the LSA / Rackham Bulletin? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Print the course in the Time Schedule? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Print the course Instructor in the Time Schedule? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Expected Class Size: <u>900</u></p> <p>Instructor Name <u>varies</u> Official Title _____</p>																																									
<p>Approval</p> <p><input type="checkbox"/> Approve <input type="checkbox"/> Defer <input type="checkbox"/> Deny</p>		<p><input checked="" type="checkbox"/> Indefinitely <input type="checkbox"/> One Term Only</p>		<p>Approval of Department Chair(s) _____ Date _____</p> <p><u>William R. Roush, Chemistry Chair</u> <u>3-27-2003</u></p>																																					
<p>cc <u>P. Rinker</u> _____ Date <u>4/1/2003</u></p> <p>xc _____</p> <p>rack _____</p>																																									

COURSE APPROVAL REQUEST FORM**Page 3**

3/27/2003

Chem 126
New Course*Supporting Statement*

See Chem 125

Fill in only if you are adding a new discussion section to be led by a GSI. You MUST provide a statement justifying this request. Approval of the course does NOT imply approval for the required funding for GSIs. If approved, the request must then be submitted to the LSA Budget Office as usual.

GSIs

Requested FTE 50%

Introducing and supervising laboratory procedures, attending lecture, leading discussions, grading lab reports, proctoring and grading exams. Departmental GSI training, mentoring by GSM, weekly staff meetings.

Course Approvals

COURSE APPROVAL FORMS

For April 15, 2003 CoE CC Meeting

EECS 501(X-Listed with AERO 552) Modification – Removing AERO 552 as Cross-Listed Course; Changing Prerequisites

Tabled Courses From 4-1-03 CoE CC Meeting

ENGR 301

New Course

ENGR 591

New Course



Action Requested

- New Course
- Modification of Existing Course
- Deletion of Course

Complete the following sections:
 New Courses - B & C completely
 Modifications - A modified information, B & C completely
 Deletions - A & C completely

Date 3/26/2003

Effective Fall 2003

A. CURRENT LISTING

B. REQUESTED LISTING

<input checked="" type="checkbox"/>	Home Department EECS	Div # 252	Course Number 501		Home Department EECS	Div # 252	Course Number 501		
	Cross Listed Course Information AERO				Cross Listed Course Information				
	Course Title Probability and Random Processes				Course Title Probability and Random Processes				
	TITLE ABBRE- VIATION	Time Sched Max = 19 Spaces Transcript Max = 20 Spaces	Prob and Rand Proc		TITLE ABBRE- VIATION	Time Sched Max = 19 Spaces Transcript Max = 20 Spaces	Prob and Rand Proc		
	Course Description Introduction to probability and random processes. Topics include probability axioms, sigma algebras, random vectors, expectation, probability distributions and densities, Poisson and Wiener processes, stationary processes, autocorrelation. spectral density, effects of filtering, linear least-squares estimation, and convergence of random sequences.				Course Description for Official Publication (Max = 50 words) Introduction to probability and random processes. Topics include probability axioms, sigma algebras, random vectors, expectation, probability distributions and densities, Poisson and Wiener processes, stationary processes, autocorrelation. spectral density, effects of filtering, linear least-squares estimation, and convergence of random sequences.				
	PROGRAM OUTCOMES:				PROGRAM OUTCOMES:				
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	Degree Requirements <input type="radio"/> Degree Requirement <input type="radio"/> Tech Elective <input type="radio"/> Core Course <input type="radio"/> Other <input type="radio"/> Free Elective				Degree Requirements <input type="radio"/> Degree Requirement <input type="radio"/> Tech Elective <input type="radio"/> Core Course <input type="radio"/> Other <input type="radio"/> Free Elective				
	Prerequisites Graduate Standing <input checked="" type="radio"/> Enforced <input type="radio"/> Advised				Prerequisites EECS 401 or Graduate Standing <input checked="" type="radio"/> Enforced <input type="radio"/> Advised				
	Credit Restrictions				Credit Restrictions				
	Level of Credit <input type="checkbox"/> Undergrad only <input type="checkbox"/> All Credit types <input checked="" type="checkbox"/> Rackham Grad <input type="checkbox"/> Rackhm Grad w/add'l Work <input type="checkbox"/> Non-Rackhm Grad <input type="checkbox"/> Ugrad or Rackhm Grad <input type="checkbox"/> Ugrad or Non-Rackhm Grad		Credit Hours Min Max 4 4	Contact Hrs/Wk 5 Number of Wks 14		Level of Credit <input type="checkbox"/> Undergrad only <input type="checkbox"/> All Credit types <input checked="" type="checkbox"/> Rackham Grad <input type="checkbox"/> Rackhm Grad w/add'l Work <input type="checkbox"/> Non-Rackhm Grad <input type="checkbox"/> Ugrad or Rackhm Grad <input type="checkbox"/> Ugrad or Non-Rackhm Grad		Credit Hours Min Max 4 4	Contact Hrs/Wk 5 Number of Wks 14
	Repeatability (Indi Research, Dir. Study, Dissertation): Is this course repeatable? <input type="radio"/> Yes <input checked="" type="radio"/> No Maximum Hours? _____ Maximum Times? _____ Can it be repeated in the same term? <input type="radio"/> Yes <input checked="" type="radio"/> No				Printing Information (Optional) <input checked="" type="checkbox"/> Print the course in the Bulletin <input checked="" type="checkbox"/> Print the course in the Time Schedule				
	Class Type(s) <input checked="" type="checkbox"/> Lec <input type="checkbox"/> Rec <input type="checkbox"/> Sem <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Dis <input type="checkbox"/> Ind <input type="checkbox"/> Other _____	Graded Section <input checked="" type="radio"/> Lec <input type="radio"/> Rec <input type="radio"/> Sem <input type="radio"/> Lab <input type="radio"/> Dis <input type="radio"/> Ind <input type="radio"/> Other _____	Grading <input checked="" type="checkbox"/> A-E <input type="checkbox"/> CR/NC <input type="checkbox"/> S/U <input type="checkbox"/> P/F <input type="checkbox"/> Y	Location <input checked="" type="checkbox"/> Ann Arbor <input type="checkbox"/> Biological Station <input type="checkbox"/> Camp Davis <input type="checkbox"/> Extension	Terms & Freq. of Offering <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> IIIa <input type="checkbox"/> IIIb <input type="checkbox"/> III <input checked="" type="checkbox"/> Yearly <input type="checkbox"/> Alter Years <input type="checkbox"/> Even Years <input type="checkbox"/> Odd Years	Half term <input type="checkbox"/> 1st <input type="checkbox"/> 2nd			
	Cognizant Faculty Member: _____ A. Yagle _____ A. Hero Title Professor Professor			Grad Course: Attach nomination if Cognizant Faculty is not a regular graduate faculty					

- Approval
- Curriculum Comm. _____
 - Faculty _____
 - Rackham _____
 - Cross listed Unit 1 _____
 - Cross listed Unit 2 _____

Submitted By: Home Dept. Cross-listed Dept.
 Name, Signature & Department
 Home Dept. **EECS Jeff Fessler** *Jeff Fessler* **2003-4-2**
 Cross-listed Dept(s). **AERO Jaim Boyd, J. Q.**
 _____ **04-02-03**



Action Requested

- New Course
- Modification of Existing Course
- Deletion of Course

Complete the following sections:
 New Courses - B & C completely
 Modifications - A modified information, B & C completely
 Deletions - A & C completely

Date 3/31/2003
 Effective Sp-Su 2003

A. CURRENT LISTING			B. REQUESTED LISTING		
Home Department		Div #	Course Number		
			Engineering		290 301
Cross Listed Course Information			Cross Listed Course Information		
Course Title			Course Title		
			Engineering Undergraduate Study Abroad		
TITLE ABBREVIATION	Time Sched Max = 19 Spaces		TITLE ABBREVIATION	Time Sched Max = 19 Spaces	Engineering UG Study Abroad
	Transcript Max = 20 Spaces			Transcript Max = 20 Spaces	Engineering UG Study Abroad
Course Description			Course Description for Official Publication (Max = 50 words)		
			Study abroad for fall, winter, spring, summer, or spring/summer at College of Engineering approved Study Abroad programs		

PROGRAM OUTCOMES:				PROGRAM OUTCOMES:													
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Other			Other			Other			Other								
Prerequisites				Prerequisites				Prerequisites				Prerequisites					
<input type="radio"/> Enforced <input type="radio"/> Advised				Student must have 4-5 semester of foreign language for immersion programs and meet				<input type="radio"/> Enforced <input checked="" type="radio"/> Advised									
Credit Restrictions				Credit Restrictions				Credit Restrictions				Credit Restrictions					
Level of Credit				Level of Credit				Level of Credit				Level of Credit					
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<input type="checkbox"/> Rackham Grad		<input type="checkbox"/> All Credit types		Min Max		Number of Wks											
<input type="checkbox"/> Non-Rckhm Grad		<input type="checkbox"/> Rckhm Grad w/add'l Work															
<input type="checkbox"/> Ugrad or Rckhm Grad																	
Repeatability (Indic Research, Dir. Study, Dissertation):				Printing Information				Printing Information				Printing Information					
Is this course repeatable? <input type="radio"/> Yes <input type="radio"/> No				(Optional) <input checked="" type="checkbox"/> Print the course in the Bulletin				(Optional) <input checked="" type="checkbox"/> Print the course in the Time Schedule									
Maximum Hours? _____ Maximum Times? _____																	
Can it be repeated in the same term? <input type="radio"/> Yes <input type="radio"/> No																	
Class Type(s)		Graded Section		Grading		Location		Terms & Freq. of Offering		Hall term							
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Cognizant Faculty Member: _____				Stella Pang				Title Professor, EECS									
Grad Course: Attach nomination if Cognizant Faculty is not a regular graduate faculty																	

Approval

Curriculum Comm. _____

Faculty _____

Rackham _____

s listed Unit 1 _____

s listed Unit 2 _____

Submitted By: Home Dept. Cross-listed Dept.

Name, Signature & Department

Home Dept. Engineering, Gary Herrin

Cross-listed Dept(s): _____

SUPPORTING STATEMENT

CoE study abroad destinations are chosen carefully based on feedback from faculty in departments and the committee on international programs in order to ensure the quality of the institution to whom the College sends its students. At regular intervals the CoE will assess study abroad activities with its hosting institutions to determine whether that institutions still warrants being called an approved study abroad institution.

Outbound students have access to both technical and, in varying degrees, to humanities and social science courses at these partner institutions. Although the institutions themselves have been approved by the College, the courses students take are not automatically assumed to be transferrable to the College. Courses are typically graded by faculty from the overseas partners and as such, the courses must be approved by UM counterparts in order to ensure a) transferability and b) application of the course toward meeting a degree requirement. A course approval process is in place whereby a UM department that would otherwise teach a similar course here is contacted to assess the course to determine transferability of the course back to UM (see attached sample memo to a Business faculty member, course evaluation form, transfer credit evaluations from international institutions (from Office of Transfer Admissions and Recruitment, CoE) and sample of transfer credit authorization and transcript). Students must submit syllabi in order to process a course evaluation. 100/200 level HU/SS courses are assessed by Melissa Eljamal. If a student plans to elect a HU/SS course to fulfill a series requirement, the syllabus is sent to our LSA colleagues for evaluation. Core engineering (math, physics, chemistry) and advanced math courses are assessed by our LSA colleagues for a recommendation. Once a course has been evaluated, this information is shared with the student's undergraduate program advisor who makes a final decision re. whether or not these courses will fulfill specific degree program requirements. One exception to this rule is the Shanghai Jiao Tong program. UM faculty will go to Shanghai for spring/summer term and teach UM courses as they would be taught here (but in a condensed format). Students will register for these courses as regular courses, with one section (permission only) dedicated to study in Shanghai. Any other courses taken in Shanghai which are taught by non-UM faculty will be subject to the study abroad course evaluation rule.

When studying abroad, students immerse themselves in a foreign culture, learn to adapt their communication skills and become more aware of the communication and behavior skills of other cultures, both inside and outside the classroom. They will learn other perspectives on teaching, learning, and practicing engineering that will help them be better prepared for functioning as an engineer in a global community.

Are any special resources or facilities required for this course?

Yes No

Detail the Special requirements

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Action Requested

- New Course
- Modification of Existing Course
- Deletion of Course

Complete the following sections:
 New Courses - B & C completely
 Modifications - A modified information, B & C completely
 Deletions - A & C completely

Date 3/31/2003
 Effective Sp/Su 2003

A. CURRENT LISTING			B. REQUESTED LISTING		
Home Department		Div #	Course Number		
Engineering		290	591		
Cross Listed Course Information			Cross Listed Course Information		
Course Title			Engineering Graduate Study Abroad		
TITLE ABBREVIATION	Time Sched Max = 19 Spaces		TITLE ABBREVIATION	Time Sched Max = 19 Spaces	Engineering Grad Study Abroad
	Transcript Max = 20 Spaces			Transcript Max = 20 Spaces	Engineering Grad Study Abroad
Course Description			Course Description for Official Publication (Max = 50 words) Study abroad for fall winter, spring, summer or spring/summer at College of Engineering approved Study Abroad programs.		

PROGRAM OUTCOMES:				PROGRAM OUTCOMES:			
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SUPPORTING STATEMENT

CoE study abroad destinations are chosen carefully based on feedback from faculty in departments and the committee on international programs in order to ensure the quality of the institution to whom the College sends its students. At regular intervals the CoE will assess study abroad activities with its hosting institutions to determine whether that institutions still warrants being called an approved study abroad institution.

Outbound students have access to both technical and, in varying degrees, to humanities and social science courses at these partner institutions. Although the institutions themselves have been approved by the College, the courses students take are not automatically assumed to be transferrable to the College. Courses are typically graded by faculty from the overseas partners and as such, the courses must be approved by UM counterparts in order to ensure a) transferability and b) application of the course toward meeting a degree requirement. A course approval process is in place whereby a UM department that would otherwise teach a similar course here is contacted to assess the course to determine transferability of the course back to UM (see attached sample memo to a Business faculty member, course evaluation form, transfer credit evaluations from international institutions (from Office of Transfer Admissions and Recruitment, CoE). Students must submit syllabi in order to process a course evaluation. Cognate courses must be approved using Backham course approval processes. Once a course has been evaluated, this information is shared with the student's program advisor who makes a final decision re. whether or not these courses will fulfill specific degree program requirements. One exception to this rule is the Shanghai Jiao Tong program. UM faculty will go to Shanghai for spring/summer term and teach UM courses as they would be taught here (but in a condensed format). Students will register for these courses as regular courses with one section (permission only) dedicated to study in Shanghai. Any other courses taken in Shanghai which are taught by non-UM faculty will be subject to the study abroad course evaluation rule.

When studying abroad, students immerse themselves in a foreign culture, learn to adapt their communication skills and become more aware of the communication and behavior skills of other cultures, both inside and outside the classroom. They will learn other perspectives on teaching, learning, and practicing engineering that will help them be better prepared for functioning as an engineer in a global community.

Are any special resources or facilities required for this course?

Yes No

Detail the Special requirements

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Humanities and Social Sciences

Humanities and Social Sciences (Draft 4/10/03)

The Humanities and Social Science Requirements offer a variety of academic choices for all students working toward an undergraduate Engineering degree. It is designed to help strengthen communication and analytical skills while acquiring the social, cultural, political, and economic background crucial to fulfilling the College of Engineering's purpose of "preparing our graduates to begin a lifetime of technical and professional creativity and leadership in their chosen field".

To provide a breadth of education, each program in the College identifies a certain number of credit hours of elective courses (a minimum of 16) concerned with cultures and relationships – generally identified as humanities and social sciences. Students are encouraged to select a cluster theme for their humanities/social science electives. This is a unifying theme (such as psychology, economics, or history) that focuses the student's HU/SS electives.

Requirement:

The specific requirements for all students are listed below:

- 1) Humanities (6 credit hours):
At least two courses totaling at least 6 credit hours.
- 2) Sequence of humanities or social science courses (6 credit hours):
A sequence of at least two courses in either the humanities or social science (or both) totaling six or more credit hours, must be taken from the same department or division (e.g., History), at least one of which must be an upper level (numbered 300 or above). This requirement may, of course, overlap requirement 1.
- 3) The remaining credit hours may be satisfied with elective courses in either humanities or social sciences.

Definitions and Exceptions:

These requirements can often be satisfied by a number of courses from the College of Literature Science and the Arts (LSA), or in part by advanced placement credit or by courses taken at another university. For purposes of this College of Engineering requirement a course is defined as being a humanities or social science as follows:

- 1) Any course that is designated as "HU" or "SS" by the College of Literature Science and Arts regardless of any additional description meets this requirement as humanities or a social science, respectively.
- 2) Language courses, those designated as "LR" are counted as humanities. However, advanced placement credit for language courses at the 100 level and below are not to be used to satisfy this requirement. These may be counted instead as Unrestricted Electives.

3) Courses not covered by items 1 and/or 2, that are defined/designated as “BS”, “CE”, “MSA”, “NS”, “QR”, “experiential”, “directed reading or independent study”, or course titles that include the terms or partial phrases “composition”, “math”, “outreach”, “performance”, “physics”, “practice”, “practicum”, “statistics”, “studio”, “tutor” may not be used to satisfy this requirement.

4) For the purposes of this requirement, courses not covered by items 1, 2 & 3 above will be defined as *humanities* courses if they are offered by the following departments or divisions:

- American Culture,
- Architecture (non-studio),
- Art (non-studio),
- Classical Archaeology,
- Classical Studies
- Comparative Literature,
- Dance (non-performance),
- Film and Video Studies,
- Great Books,
- History of Art,
- Asian, English, Germanic, Romance (French, Italian, Portuguese, Spanish) and
Slavic Language and Literatures,
- Music (non-performance)
- Music History and Musicology,
- Philosophy,
- Religion,
- Theatre and Drama (non-performance)

Similarly, courses not covered by items 1,2 & 3 above will be defined as *social sciences* if they are offered by the following departments:

- Afro-American and African Studies,
- Cultural Anthropology,
- Communication Studies,
- Armenian, Judaic, Latin American and Caribbean,
Latina/Latino, Middle Eastern and North African, Native American, Near
Eastern, Russian and East European Studies,
- Economics,
- History,
- Linguistics,
- Political Science,
- Psychology,
- Sociology,
- Women’s Studies