




UNIVERSITY OF KENTUCKY

TRANSMITTAL

DATE: November 14, 2003

TO: Rebecca Scott
Senate Council

FROM: Lissa Holland 
Graduate Council

The Graduate School

351 Patterson Office Tower
Lexington, KY 40506-0027
(859) 257-4613
Fax: (859) 323-1928
www.rgs.uky.edu/gsl/

The Graduate Council met on October 30, 2003 and approved the following:

COLLEGE OF ENGINEERING

Mechanical Engineering

Mechanical Engineering – MS Program through the UK Graduate Center in Paducah

The program envisioned for Paducah is the non-thesis MSME option (Plan B). The program will be offered in synchronous mode at the UK Graduate Center on the Paducah Community College campus, employing a blend of on-site traditional classroom instruction and locally-facilitated interactive television (with periodic on-site visitation by Lexington-based faculty), augmented as appropriate by web-assistance, e-mail communication, and limited use of NetMeeting/Messenger software for one-on-one consultation. All these modes of delivery have long been used in Paducah, even before the inception of B.S. degree programs in Mechanical Engineering and Chemical Engineering in 1997. No wholesale use of multi-media format is envisioned.

The program will be basically an evening program, with one, or at most two, courses available each semester. The non-thesis degree requires 30 credits of 500-level and above course work. Several 500-level courses admissible into the MSME program are already offered live each year in Paducah, while the 600-level courses will be offered from Lexington via ITV, in conjunction with a regular course section offered on the main campus. A summary of ME graduate course options and information on general admission and course requirements, as is being distributed to prospective students in the Paducah area, are offered as Attachment 1.

One of the four UK ME faculty members, all at least Associate Members of the Graduate Faculty will serve as the student's major advisor, permitting significant student-instructor interaction, appropriate to the academic discipline and to the nature of the graduate course involve. Student-to-student interaction is ensured by maintenance of the traditional classroom environment, which, in the cases where two sections (Lexington and Paducah) are connected via ITV, enhanced interaction among graduate students separated in space by 400 km is made possible. A further benefit is the increased

diversity of student population made possible by the blending of graduate students in Lexington who are predominately international students or domestic students with fairly limited industrial background, with a population in Paducah that will contain a significant number of experienced practicing engineers with more industrial experience, most of whom will be domestic students, many of whom will be either native or transplanted Kentuckians (as indicated by early enquiries).



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Dr. Jeffrey B. Dembo, Chair
Senate Council
153 Bowman Hall
CAMPUS 0059

Dear Dr. Dembo:

At its meeting on October 30, 2003, the Graduate Council approved, and recommends approval by the Senate Council, for the proposal from the College of Engineering to create an Off-Campus M.S. in Mechanical Engineering Program through the UK Graduate Center in Paducah.

Thank you for your attention to this request.

Sincerely yours,

A handwritten signature in blue ink that reads "Jeannine Blackwell". The signature is written in a cursive, flowing style.

Jeannine Blackwell, Dean
The Graduate School

Enclosures

lh

cc: Rebecca Scott
Jaque Hager



UNIVERSITY OF KENTUCKY

Office of the Dean
College of Engineering
351 Ralph G. Anderson Building
Lexington, Kentucky 40506-0503
(859) 257-1687 / 257-8827
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www.engr.uky.edu

June 5, 2003

TO: Dr. Douglass Kalika, Dean, Graduate School
FROM: Dr. Eric Grulke, Associate Dean for Research and Graduate Studies
SUBJECT: Off-Campus MSME Program

Attached is a proposal to create an Off-Campus Master of Science in Mechanical Engineering Program through the UK Graduate Center in Paducah. The proposed start date for this program is August 2003.

As you can see from the proposal, the program will be a non-thesis MSME (Plan B) option employing a combination of on-site instruction supplemented with ITV courses taught by Lexington-based faculty.

I concur with this proposal and ask that you approve this request.


cc: Dr. Keith Rouch
Dr. G. T. Lineberry
Dr. William Murphy

JUN 09 2003



UNIVERSITY OF KENTUCKY

June 19, 2003

Memo to: Douglass S. Kalika
From: James E. O'Reilly 
Subject: DL Delivery of the MSME at Paducah Graduate Center

The Graduate School
351 Patterson Office Tower
Lexington, KY 40506-0027
(859) 257-4613
Fax: (859) 323-1928
www.rgs.uky.edu/gsl

Per your request, I have reviewed the June 5 memo from Eric Grulke requesting approval of the College of Engineering's request to deliver their approved on-campus version of the MSME (Plan B) to UK's Graduate Center in Paducah.

The bottom line, in my opinion, is that this proposal is entirely meritorious and should be approved and communicated up the administrative chain to the CPE and to SACS. While quite succinct, the request is very straightforward and covered all important points; there is no down side to this. I commend Engineering in getting this request to us well ahead of time.

- The proposal was approved by the faculty in Mechanical Engineering and by the Engineering Dean's office.
- They will be delivering their standard, approved, on-campus MSME (Plan B) degree program; no changes in the program requirements are requested.
- They have been discussing and organizing the delivery of a master's degree program to Paducah for some time now, so their plans are well formulated and delivery will be accomplished with essentially no new resources.
- Course work will be delivered by a combination of on-site and campus faculty using CV/ITV to beam classes between the two sites. This ensures that the quality and level of the course work will be virtually identical to the on-campus version. Moreover, the different nature of the typical Paducah student (older and with often substantial industrial experience) as compared to the typical on-campus student will diversify and enrich the experience for all the students involved. The proposed rate of course delivery is appropriate for non-traditional students employed full time
- There is sufficient technology, faculty, space, and library support at Paducah to provide the level of student-support needed for this master's program.
- Faculty in the College of Engineering have been delivering DL courses on and off for over a decade, and are familiar with the use of the CV/ITV mode of delivery.
- Finally, it will be very good to once again have one of our graduate degree programs delivered to the Paducah site.

I heartily recommend approval and transmittal of this request; it looks to me like a no-brainer. In my opinion, there are a number of benefits and no apparent deficiencies to this proposal.

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Off-Campus MSME Program
Department of Mechanical Engineering
UK Graduate Center, Challenger Learning Center
Paducah, KY

The College of Engineering, Department of Mechanical Engineering, requests approval for the delivery of a traditional "on-campus" program to the UK Graduate Center in Paducah, beginning in August 2003. (Such approval is needed whenever 25% or more of a degree program is offered off-campus, consistent with SACS criteria).

The program envisioned for Paducah is the non-thesis MSME option (Plan B). The program will be offered in synchronous mode at the UK Graduate Center on the Paducah Community College campus, employing a blend of on-site traditional classroom instruction and locally-facilitated interactive television (with periodic on-site visitation by Lexington-based faculty), augmented as appropriate by web-assistance, e-mail communication, and limited use of NetMeeting/Messenger software for one-on-one consultation. All these modes of delivery have long been used in Paducah, even before the inception of B.S. degree programs in Mechanical Engineering and Chemical Engineering in 1997. No wholesale use of multi-media format is envisioned.

The program will be basically an evening program, with one, or at most two, courses available each semester. The non-thesis degree requires 30 credits of 500-level and above course work. Several 500-level courses admissible into the MSME program are already offered live each year in Paducah, while the 600-level courses will be offered from Lexington via ITV, in conjunction with a regular course section offered on the main campus. A summary of ME graduate course options and information on general admission and course requirements, as is being distributed to prospective students in the Paducah area, are offered as Attachment 1.

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All existing program requirements will remain intact for the off-campus offering (refer to departmental website):

MS Program: <http://www.engr.uky.edu/pdfs-docs/mechanical/MSDegree.pdf>.

Appendix A-- http://www.engr.uky.edu/pdfs-docs/mechanical/App_A.pdf.

JUN 09 2003

No change in program admission requirements, course requirements, or exit requirements are proposed. Only the pace of degree progression, and in some cases the mode of delivery (approximately one 600-level course delivered via ITV from Lexington to Paducah per year), will distinguish this offering of the Plan B MSME from the offering in Lexington. Identical policies on transfer of course work into the MSME will be upheld, with all official records maintained by the ME Director of Graduate Studies, Lexington.

As with the ongoing B.S. degree programs in Paducah, the UK Distance Learning Technology Center will coordinate and manage many of the academic support services for the program in Paducah. The UKDLTC will provide three major areas of academic support services:

- (1) instructional support for students, faculty associates, and instructors (training on use of DL systems, utilization of Kentucky Virtual Library electronic information resources, coordination of information resources with library directors at PCC and UK, coordination of bibliographic instruction options, coordination of electronic resource access and provision);
- (2) administrative support (coordination of registration of DL students, liaison for handling tuition issues, management of support services evaluation for the program); and
- (3) technical support (including coordination of class schedules on the Kentucky TeleLinking Network, technical coordinators who support the classroom on the PCC campus, and student access to learning management systems).

The Director of Graduate Studies for the MSME program is Dr. George Huang, who will be assisted in Paducah by Dr. William E. Murphy, Director of the Extended Campus Engineering Program-Paducah, who also serves as the Director of the UK Graduate Center-Paducah, and by Dr. G. T. Lineberry, Associate Dean for Commonwealth & International Programs. In addition to support by the UKDLTC, additional on-site assistance will be provided by Ms. Bonita Lykins, Director of Student Services, Paducah. An announcement of the possible introduction of this program was placed in the Paducah Sun in June 2002, and has resulted in numerous enquiries from engineers in the Region.

No University resources are requested, with the exception of a Seed Grant request to The Graduate School, as the program, in Year 2, is expected to be self-supporting, as:

- (1) approximately 25% of the course work to fulfill degree requirements will also serve as technical electives in the Paducah-based undergraduate degree programs; and
- (2) economies are gained by use of ITV for 600-level courses originating in Lexington but with an audience in both Lexington and Paducah, resulting in larger total enrollment in these courses. Tuition revenue will be used to support overload payments to faculty as appropriate, required faculty travel, program marketing efforts, and payment to on-site, content-proficient faculty associates on the receive end of a distance-delivered course. A cohort of approximately 12 students is considered a minimum for program viability.

Approved by ME Graduate Faculty in faculty meeting of April 16, 2003

**Attachment 1. ME Graduate Course Options – Non-Thesis (Plan B)
Tentative Availability for Paducah**

Advanced Mathematics (400-level or above) 6 credit hours from:

- MA 432G – Methods of Applied Mathematics I
- MA 433G – Introduction to Complex Variables
- MA 481G – Differential Equations I
- MA 485G – Fourier Series and Boundary Value Problems
- MA 537 – Numerical Analysis

(Equivalent math courses may be taken from Murray State and transferred to UK)

600 Level ME Courses – at least 15 credit hours from:

- ME 601 – Advanced CAE Applications
- MFS 605 – Systems for Factory Information and Control
- ME 610 – Engineering Acoustics
- ME 620 – Advanced Engineering Thermodynamics I
- ME 626 – Advanced Heat Transfer
- ME 644 – Advanced Dynamics I
- ME 780 – Special Problems in Mechanical Engineering

500 Level (or above) Engineering Courses – 9 credit hours from:

- ME 501 – Mechanical Design with Finite Elements Methods
- ME 513 – Mechanical Vibrations
- ME 530 – Gas Dynamics
- ME 531 -- Fluid Dynamics I
- ME 580 – Heating, Ventilating, and Air-Conditioning
- ME 599 – Power Generation
- ME 599 – Aerodynamics of Turbomachinery
- Other available courses with approval of advisor and DGS

Total Credit Hour Requirements – 30

General admission and course requirements:

- Undergraduate GPA > 3.0/4.0
- GRE score of 1100 (verbal + quantitative) and 550 Analytical (or 3.5)
- Non-ME undergrad degrees (such as physics or chemistry) may be suitable provided certain undergraduate ME courses are taken in preparation for the graduate courses.
- Students not yet eligible for admission may take courses in a post-baccalaureate status
- The Graduate School permits a maximum of 9 credit hours to be transferred from outside UK. Transfer courses must be approved by the faculty advisor and the department DGS.
- At least 50% of total course requirements must be from 600-700 level courses (which may include transfer courses). A maximum of 6 hours of 780-783 courses can be used.

Each student, in consultation with his or her faculty advisor, should prepare and obtain approval from the Director of Graduate Studies for a proposed program of study. The student is required to take a final oral examination for the MS degree. Refer to the ME Department Graduate Handbook and the UK Graduate School web site for details involving course and other graduate program requirements.



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GRADUATE COUNCIL


INVESTIGATOR REPORT

Course/Courses/Program: Off-Campus MSME Program

Category (check one): New Change Drop

Date for Council Review: _____

Recommendation (circle one): Approve Approve with Reservation Disapprove

Investigator's Signature: 

INSTRUCTIONS:

The following questions are included as an outline only. Be as specific and as brief as possible. If the investigation was routine, please indicate this. Attach supplements as needed. Please return the form to Lissa Holland, 355 P.O.T., 0027, at least two days before the next Council meeting.

1. List any modifications made in the course proposal as submitted originally and reason(s) why.

In Attachment 1: "at least 6 credit" (line 3) and "no more than 9" (line 18) changed respectively to:

"no more than 6" and "9".

Original wording seemed to allow for up to 4 MA400-level courses and to restrict the number of ME500 level courses.

2. If no modifications were made, review considerations which arose during the investigation and the resolutions.

3. List contact(s) with program units and the considerations discussed therein.

Dr. George Huang, the DGS in ME

4. Additional information as needed.