November 15, 2006

MEMORANDUM

TO: Dr. Jeannine Blackwell, Chair
Graduate Council

FROM: Dr. Donn Hancher, Associate Dean

Below are items for consideration by the Graduate Council. These proposals can be viewed at:

http://www.engr.uky.edu/proposed_changes/

<table>
<thead>
<tr>
<th>Type</th>
<th>Graduate Certification in Lean Systems</th>
<th>M.S. Degree in Sustainable Production Systems</th>
<th>M.S. Degree in Sustainable Production Systems (CPE Posting)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td></td>
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</tr>
</tbody>
</table>
Proposal for Graduate Certificate in Lean Systems

The faculty of the Manufacturing Systems Engineering Program request the establishment of a Graduate Certificate in Lean Systems.

Justification: The Manufacturing Systems Engineering faculty offers a number of courses related to Lean Systems. The first such course was taught in Fall of 1994. Since then, the curriculum has grown to include four regularly taught courses, and several other courses that have been taught either occasionally or on an experimental basis. The curriculum has drawn significant interest from many industries which view knowledge of lean manufacturing as important for new hires.

The establishment of the Graduate Certificate in Lean Systems will:
1). Recognize students in the Manufacturing Systems Engineering MS program, and other degree programs on campus, who have completed a core set of courses in Lean Systems;
2). Recognize students who are interested in Lean Systems knowledge and complete the courses in post-baccalaureate status, but who are not interested in a complete degree.

Faculty Associates: As per the Graduate School’s guidelines, a graduate certificate requires a group of faculty “associates” who will participate in delivering the courses in the curriculum or who are otherwise associated with the curriculum or its topical area. The initial list of faculty associates will be as follows:

- Dr. Fazleena Badurdeen (Mechanical Engr. and Mfg. Sys. Engr.) (Assistant Professor)
- Dr. Thomas Goldsby (Management) (Associate Professor)
- Dr. Arlie Hall (Mech. Engr. and Mfg. Sys. Engr.) (Lecturer)
- Dr. Larry Holloway (Electrical Engr. and Mfg. Sys. Engr.) (Professor)
- Dr. I. S. Jawahir (Mechanical Engr. and Mfg. Sys. Engr.) (Professor)
- Dr. Jingshan Li (Electrical Engr. and Mfg. Sys. Engr.) (Assistant Professor)
- Dave MacDuffee (Mfg. Sys. Engr.) (Lecturer)
- Abbot Maginnis (Mfg. Sys. Engr.) (Lecturer)
- Dr. Phil Marksberry (Mfg. Sys. Engr.) (Lecturer)
- Jim Price (Mfg. Sys. Engr.) (Lecturer)

Graduate Certificate Director: The Graduate Certificate Director will be recommended by the Dean of the College of Engineering and appointed by the Dean of the Graduate School. The Graduate Certificate Director will initially be Larry Holloway.
Certificate Curriculum: The curriculum will be focused on lean systems and will require 12 credit hours. It will consist of the following courses:

Core for certificate (all required):
- MFS 503 Lean Principles and Practices
- MFS 581 Quality Control (title to be changed to “Sustainable Quality Systems”)
- MFS 526 Lean Systems Operations Management

One additional course related to lean manufacturing are required. These can include the following:
- MFS 612 Design of Lean Systems
- MFS 525 Organization Learning for the Lean Enterprise
- MFS 699 Quantitative Methods for Lean Systems
- MFS699 Sustainable Product Design and Manufacturing
- Other courses, approved in writing by the Graduate Certificate Director

All core courses will be offered at least once per year.

Admission Requirements: The admission requirements will be the same as those in effect for admission to the Graduate School in Post-baccalaureate status. Students are expected to come from backgrounds in engineering or business. The certificate program should be attractive to students who are employed in industry and seeking further background in Lean Manufacturing methods, and to traditional students who may be supplementing their degree programs with focused courses in lean manufacturing.

Contact Information:
Larry Holloway
Director, UK Center for Manufacturing
Kentucky Utilities Professor of Electrical and Computer Engineering

Location: 220 CRMS Building
Phone: 257-6262 ext.203
Email: holloway@engr.uky.edu