The Graduate Council met Thursday, May 6, 2004 in 320 Brigham Hall.

Members Present -

PROGRAM AREAS:

Agricultural Industries
Annie Kinwa-Muzinga – elected faculty (term expires end of 2005 summer session)

Counselor Education
Kimberly Tuescher – graduate program
Dominic Barraclough (for Diane Zimmerman) – elected faculty (term expires end of 2004 summer session)

Vice-Chair

Criminal Justice
Cheryl Banachowski-Fuller – graduate program
Tom Caywood – elected faculty (term expires end of 2004 summer session)

Engineering
Lisa Riedle – graduate program

Industrial Technology Management
Colleen Kaiser (representing Howard Brooks) – graduate program
Linda Bouck – elected faculty (term expires end of 2005 summer session) Chair

Master of Science in Education
Alison Bunte – graduate program
David Braun y Harycki – elected faculty (term expires end of 2004 summer session)

Project Management
Bill Haskins – graduate program
B J Reed – elected faculty (term expires end of 2005 summer session)

At-Large Representatives
Arthur Ranney – elected faculty (term expires end of 2004 summer session)

EX OFFICIO MEMBERS:

Dr. David Van Buren, Dean, the School of Graduate Studies
Sue Riehl – Assistant Vice Chancellor for Information Services designee

Visitors Present – Marcus Halpin, Mike Borsellino, Marian Maciej-Hiner, Rea Kirk, Deb Kinder.

Chair Linda Bouck opened the meeting at 3:32 p.m.

Announcements –

1. Dr. Tony Thomas’ term on the Graduate Council expires the end of summer 2004. Dr. Mark Meyers has been elected to replace Dr. Tony Thomas as the Master of Engineering representative to the Graduate Council. His term will run fall 2004 to the end of summer 2006.

2. Dr. David Braun y Harycki’s term on the Graduate Council expires the end of summer 2004. Dr. Braun y Harycki has been re-elected to the Graduate Council. His second term will run fall 2004 to the end of summer 2006.
1. The minutes from the April 15, 2004 meeting were approved on a motion by Kimberly Tuescher and seconded by Cheryl Banachowski-Fuller. Motion passed unanimously.


3. New courses – second readings –
   - Mechanical Engineering 7130, Control Systems Engineering – 3 credits – effective spring 2005 – Lisa Riedle and Michael Momot. Updated syllabus submitted April 27, 2004 – catalog description and prerequisite: this course is intended as a first semester graduate course designed for distance education. It covers the basics for building a practical control system incorporating a microcontroller or PLC. Basic electronics, logic, programming for microprocessors and PLC’s, fractional horsepower motors, and sensors will be introduced. Control theory implementing electro-mechanical systems will be reviewed. P: consent of instructor. S.

Lisa Riedle was present to answer questions. Courses approved on a motion by Cheryl Banachowski-Fuller and seconded by Alison Bunte. Motion passed unanimously.

4. Mechanical Engineering 4800/6800, Finite Element Method –

Lisa Riedle was present to answer questions. Question – is Mechanical Engineering 7800 was a new course – different from Mechanical Engineering 6800. Answer – yes – new title (Advanced Finite Element Method) and course content is more advanced. Discussion ensued. New course Mechanical Engineering 7800, Advanced Finite Element Method, and dropping Mechanical Engineering 6800, Finite Element Method, approved on a motion by Bill Haskins and seconded by Lisa Riedle. Motion passed unanimously.

   - Industrial Engineering 4830/6830, Cost and Value Analysis course number changed to Industrial Engineering 7830, Advanced Cost and Value Analysis – effective summer 2004.
   - Drop – Industrial Engineering 6830, Cost and Value Analysis, effective summer 2004.

Lisa Riedle was present to answer questions. Lisa Riedle pointed out that these are new courses; not number changes and the old courses are being dropped. She mentioned that these courses are strictly online courses. The syllabi cover advanced work in these areas. New courses Industrial Engineering 7030, Advanced Production and Operations Analysis, and Industrial Engineering 7830, Advanced Cost and Value Analysis, were approved on a motion by Bill
Haskins and seconded by Annie Kinwa-Muzinga. Dropping courses Industrial Engineering 6030 and Industrial Engineering 6830 was approved on a motion by Kimberly Tuescher and seconded by Colleen Kaiser. Both motions passed unanimously.

6. New technical emphasis area in the Master of Engineering program – Lisa Riedle –
   Control Systems: the module will consist of the following courses:
   - Mechanical Engineering 7130 – Control Systems Engineering
   - Electrical Engineering 7320 – Modern Control Systems
   - Electrical Engineering 7340 – Digital Control Systems

   Lisa Riedle was present to answer questions. Motion to approve the technical emphasis called Control Systems within the Master of Engineering degree with these thee courses was approved on a motion by B J Reed and seconded by Alison Bunte. Motion passed unanimously.

7. For information only – drop – Mechanical Engineering 7330, Modern Controls, effective spring 2005 – Lisa Riedle.
   No action taken – an information only item.


   Lisa Riedle was present to answer questions. Discussion ensued. B J Reed made a motion to approve the creation of a new course – Civil Engineering 7100, Dynamics of Structures – for fall 2004. Art Ranney seconded the motion. Motion passed with one nay vote. Discussion ensued. A motion was made to postpone the previous motion until the October 2004 Graduate Council meeting when the final syllabus can be presented but allowing for the course to be advertised in the 2004-2006 Graduate Catalog. Motion passed unanimously.


   Updated catalog description – effective summer 2004 – Dr. S. Balachandran – This course will provide experience in applying Taguchi Methods for designing robust products and processes. Taguchi Methods may be considered as “cookbook” approaches to designing and analyzing industrial experiments. Students will learn to plan a project and develop strategies for experiments. Definition of controllable factors, noise factors, responses, and quality characteristics (both dynamic and static) in a project will be discussed. Applications of orthogonal arrays, signal-to-noise ratio, mean-squared deviation, loss function, ANOVA, and related topics will be covered. P: MATH 4030, MATH 6030, MATH 6050, or graduate standing and consent of instructor.

   Lisa Riedle and Bill Haskins were present to answer questions. Question – B J Reed – why does the prerequisite state “graduate standing and consent of instructor”? Is that correct? Answer – Lisa Riedle – remove “graduate standing and”. Should state “P: MATH 4030 or MATH 6030 or MATH 6050, or consent of instructor”. Lisa was asked if the title has been changed. She indicated it has been changed from Taguchi Methods for Robust Design to Taguchi Method of Designing Experiments. Bill Haskins pointed out the MATH 6030 is now MATH 6050. B J Reed made a motion to approve adding Mechanical Engineering 7440 (with new title of Taguchi Method of Designing Experiments, updated course description and amended prerequisites) to the Project Management electives list effective summer 2004. Kimberly Tuescher seconded the motion. Motion passed unanimously.

10. Requests for admission to the Graduate Faculty –
    - Susan Hilal, Criminal Justice
    - P. B. Ravikumar, Mechanical and Industrial Engineering
    - Phil Sealy, Electrical Engineering
    - Piyare L. Sharma, Electrical Engineering
The requests for admission to the Graduate Faculty were approved on a motion by Lisa Riedle and seconded by Cheryl Banachowski-Fuller. Motion passed unanimously.

Chair Bouck then made an announcement that Dr. Hilal has been elected to the Graduate Council as the representative for the Criminal Justice program. Her term will run from fall 2004 to the end of summer 2006

11. Alternative Licensing Program – Alison Bunte.

Alison Bunte and Deb Kinder presented and answered questions regarding a proposal for alternative licensure under the Wisconsin Department of Public Instruction (DPI). The DPI approached the University of Wisconsin-Platteville to administer an online program to license geographically isolated teachers teaching in the middle/high schools in Wisconsin. The “No Child Left Behind Act” (NCLB) states that every child is entitled to a highly qualified teacher. Teachers who are not certified or who are teaching outside their field may be considered highly qualified teachers if they are enrolled in a program that will lead to certification within two years. Alison Bunte went over the development stages. This licensure program would be for 8 graduate credits.

- Prerequisites for admission into this licensure program –
  - Bachelor’s degree in the content area in which they are applying for certification
  - Must meet all admission requirements to the School of Education
  - Must be currently teaching under an emergency license in Wisconsin
  - Criminal background check will be conducted
  - Interview will be conducted to which the teacher candidate must bring their admission portfolio. Two faculty members from the University of Wisconsin-Platteville will determine if the candidate should be admitted. Student will pay a $75 fee to cover the costs of the faculty and their travel.

This licensure program will be handled through the Distance Learning Center. They would like to start this licensure program fall 2004. Discussion ensued. Kimberly Tuescher pointed out that it seems we are fixing a problem that DPI created.

Question – are there similar licensure programs in other states? Answer – yes – but not all are at highly accredited institutions. DPI wanted a public state institution to handle the licensure program.

Discussion ensued. It was mentioned that perhaps this licensure program could be revisited in about a year to evaluate its success. Also mentioned that the courses for the licensure program already exist at the University of Wisconsin-Platteville.

Discussion regarding graduate credits versus undergraduate credits. Suggested that maybe graduate credits and/or undergraduate credits should be investigated before the Graduate Council endorses the program. Also pointed out that eight graduate credits is one-quarter of the way to a master’s degree. More discussion.

Tom Caywood made a motion to approve the concept of the alternative licensure program. B J Reed seconded the motion. Motion passed with one nay vote.

12. Master of Science program in Industrial Technology Management to be placed on hold/no new students admitted after July 1, 2004.

This is an information only item. Linda Bouck noted that the Industrial Technology Management students already in the program would be allowed to finish their degree. David Van Buren gave some background for the decision to put the Industrial Technology Management program on hold. Students will be admitted up to July 1, 2004.


David Van Buren presented the subcommittee report. The subcommittee looked at mission statements, statements of purpose and measurable student learning outcomes for the program areas. Status of the different program areas –

- Project Management – fine
- Computer Science – fine
- Criminal Justice – being revamped and Cheryl Banachowski-Fuller will provide the School of Graduate Studies Office with a final version.
- Industrial Technology Management – revamped
- Master of Science in Education – revising
- Counselor Education – David Van Buren will be meeting with them with recommendations
- Engineering – David Van Buren will be meeting with them and request a revamping.

Dr. Van Buren mentioned that these would appear in the 2004-2006 Graduate Catalog. They will be listed near the beginning of each program area.


Linda Bouck asked for nominations for chair for the 2004-2005 year.
Kimberly Tuescher nominated Diane Zimmerman. It was mentioned that her term expires at the end of summer 2004. She has served two successive terms on the Graduate Council.
Cheryl Banachowski-Fuller nominated B J Reed. BJ Reed declined the nomination.
Kimberly Tuescher nominated Cheryl Banachowski-Fuller. Cheryl declined the nomination.
Kimberly Tuescher nominated Alison Bunte. Alison Bunte was not present to answer so she will be contacted.

Motion to postpone election for chair made by Art Ranney and seconded by Kimberly Tuescher. Motion passed.

A memo will be sent to all Graduate Council members asking if they would be interested in serving as chair for the 2004-2005 year.
Linda Bouck will convene the first meeting of the Graduate Council for the 2004-2005 year. At that time nominations and voting for Chair, Vice Chair and Secretary for the 2004-2005 year will be held.

15. Other business.

Kimberly Tuescher made an announcement that Dominic Barraclough has been elected to serve on the Graduate Council replacing Diane Zimmerman. His term will run from fall 2004 to the end of summer 2006.
David Van Buren handled out a listing of the undergraduate and graduate courses not offered for three years or more. He asked that the areas check the listing for accuracy and consider dropping courses that have not been offered for the last three years. He will be contacting program chairs regarding this.

Cheryl Banachowski-Fuller made a motion to adjourn. B J Reed seconded the motion. Passed. Meeting adjourned at 5:00 p.m.

Items for information only –

1. Admission to Candidacy Listing – Linda Jamieson –
The following graduate students have been admitted to candidacy

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<thead>
<tr>
<th>NAME</th>
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<tr>
<td>Amin, Mohammad</td>
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<td>Guyton, David</td>
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<td>Harris, Carla</td>
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2. Mechanical Engineering 7300, Design of Experiments, 3 credits – Dr. S. Balachandran –

Updated catalog description effective fall 2004 –

- **Old catalog description** - Strategy of experimentation. Some typical applications of experimental design. Basic principles of designing experiments. Guidelines for designing engineering experiments. Brief history of statistical design of experiments (DOE). Basic statistical concepts and simple comparative experiments. Experiments with a single factor and the analysis of variance (ANOVA). Checking model adequacy. The randomized complete block design (RCBD) and Latin square. Introduction to two-factor factorial designs and general factorial designs. Fractional factorial designs and confounding present in these designs. Methods of improving the resolution of the design through blocking and folding over of experiments. Response surface methods and designs. Random factors in factorial experiments, mixed models, nested designs, and split-plot designs. Taguchi approach to the design of experiments. Minitab, Design-Ease, and Qualitek-4 software will be used for solving typical problems in various industries.

- **New catalog description** – This course on Design of Experiments (DOE) provides experiences in planning, conducting, and analyzing statistically designed experiments. The methods of DOE may be applied to design or improve products and processes. Analysis of variance (ANOVA), test of hypothesis, confidence interval estimation, response surface methods, and other statistical methods are applied in this course to set values for design, process, or control factors so that one or more responses will be optimized, even when noise factors are present in the system. This course is designed to teach the nuts and bolts of DOE as simply as possible. P: MATH 4030 or MATH 6030 or MATH 6050, or consent of instructor.

3. Mechanical Engineering 7430, Quality Engineering and Management, 3 credits – Dr. S. Balachandran –

Updated catalog description effective fall 2004 –


- **New catalog description** – This course provides practical tools for planning and completing quality improvement projects. The first part of the course ideas with an introduction to quality management philosophies, tools, and approaches. The second part (about 70%) of the course is devoted to the Six-Sigma (SS) philosophy, roadmap, tools, and techniques of planning and executing quality improvement projects. The course concludes with the application of the Design for Six Sigma (DFSS) approach to design or improve products and processes. P: MATH 4030 or MATH 6030 or MATH 6050, or consent of instructor.

4. **Non-graduate faculty approved by Dean Van Buren to teach graduate classes** -

- **Paul Gasser** - Teaching 6530E, Current Topics in Education: (none noted) - beginning summer 2004 and expiring end of summer 2006.

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**GRADUATE COUNCIL MEETING DATES 2003-2004**

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Note – meetings will be held 3:30 p.m. – 5:00 p.m. in 320 Brigham Hall.

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**GRADUATE COUNCIL MEMBERSHIP FOR 2003-2004**

**Agricultural Industries**
Mark Zidon – graduate program
Annie Kinwa-Muzinga (replacing John Tembei) – elected faculty (term expires end of 2005 summer session)

**Counselor Education**
Kimberly Tuescher – graduate program
Diane Zimmerman – elected faculty (term expires end of 2004 summer session) Vice Chair

**Criminal Justice**
Cheryl Banachowski-Fuller – graduate program
Tom Caywood – elected faculty (term expires end of 2004 summer session)

**Engineering**
Lisa Riedle – graduate program
Tony Thomas – elected faculty (term expires end of 2004 summer session) Secretary

**Industrial Technology Management**
Colleen Kaiser (representing Howard Brooks) – graduate program
Linda Bouck – elected faculty (term expires end of 2005 summer session) Chair

**Master of Science in Education**
Alison Bunte – graduate program

**Project Management**
Bill Haskins – graduate program
B. J. Reed – elected faculty (term expires end of 2004 summer session)

**At-Large Representatives**
Theon Parsons – elected faculty (term expires end of 2005 summer session)

**EX OFFICIO MEMBERS**
Dr. David Van Buren, Dean, the School of Graduate Studies
Sue Riehl – Assistant Vice Chancellor for Information Services designee