The Graduate Council met Thursday, April 15, 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

Criminal Justice
  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
  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

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

Visitors Present – Colleen McCabe, Mike Momot, Matthew Roberts, Rea Kirk, Piyare Sharma, Jessie Cunningham, Aaron Wilberding, Doran Waite.

Chair Linda Bouck opened the meeting at 3:31 p.m.

Minutes –

1. The minutes from the March 25, 2004 meeting were approved on a motion by Kimberly Tuescher and seconded by David Braun y Harycki.

   Chair Bouck at this point introduced three student observers – Jessie Cunningham, Doran Waite and Aaron Wilberding.


   Rea Kirk presented course history and content. She indicated that herself, Kimberly Tuescher and Patricia Bromley, developed the course. Course is part of the Special Education Cross-Categorical Certification Program. It is replacing a course previously taught by Patricia Bromley under Psychology. Discussion ensued.

   Alison Bunte informed the Council that the School of Education will be presenting a document to the UUCC and the Graduate Council informing them of the course change in the Special Education Cross-Categorical Certification Program.
David Braun y Harycki – question – is the course only offered summer sessions? Answer – Rea Kirk – yes.

Tom Caywood – question – what is the estimate number of graduate students who will be involved in the course next summer? Answer – Kimberly Tuescher – 15-20 would be her guess.

Tom Caywood – question – course meets for eight weeks during the summer? Answer – Alison Bunte – yes, it meets sixteen times.

Discussion ensued.

Tom Caywood – observation – the syllabus doesn’t appear to be in-depth enough to fully explain course content and assignment expectations. Alison Bunte – answer – the School of Education could present a rubrics document for the next Graduate Council meeting, would that suffice? It was the general concensus of the Council that this would be desirable. Alison Bunte indicated that it would be done.

Linda Bouck indicated at this point that there would be a slight renumbering of the agenda items 3, 4 and 5 if there were no objections. Colleen McCabe needed to leave early. Agenda item number 3 would become agenda item number 4. Agenda item number 4 would become agenda item number 5. Agenda item number 5 would become agenda item number 3. There was no objection.


Colleen McCabe was present to answer questions. Colleen indicated that Physical Education/Health is updating their degree plan. They had polled students asking for weaknesses in their program, what students learned from the program and what students wanted to learn. Changes were made based on information gathered. Chair Bouck called for a vote of approval. Credit change was approved unanimously.

Lisa Riedle asked if items numbered 4, 5 and 7 could be handled as a packet. There were no objections.


Lisa Riedle, Piyare Sharma and Michael Momot were present to answer questions. Michael Momot spoke regarding the background for splitting course Mechanical Engineering 7330, Modern Controls, three credits, into two courses. He indicated that the prerequisite for Mechanical Engineering 7130 might be changed to “consent of instructor” since the student would need the proper technical background to be successful in the course. An updated syllabus would then be prepared.

Piyare Sharma spoke regarding course content for Electrical Engineering 7320 and Electrical Engineering 7340. He explained how these two courses followed Mechanical Engineering 7130.
Lisa Riedle explained that these three courses would be part of the new Technical Emphasis for the Master of Engineering program. Lisa indicated that a proposal would be forthcoming outlining the new Technical Emphasis – probably for the May 2004 Graduate Council meeting.


Second reading for these courses will be at the May 6, 2004 Graduate Council meeting.


Kimberly Tuescher presented background leading up to the change in credits. The Department of Public Instruction (DPI) is now requiring additional hours for the practicum. Changed from 250 hours to 600 hours. Thus the course had to be updated to cover the change in requirement. Kimberly Tuescher indicated that the credits could be completed over a spread of semesters up to a total of twelve credits.

Tom Caywood – question – will this change the number of credits required for graduation? Answer – Kimberly Tuescher – No. We redesigned the curriculum.

Discussion ensued.

Chair Bouck called for a vote of approval. Credit changed was unanimously approved.


Matthew Roberts was present to answer questions. Matthew Roberts explained the need for the course and he went over the course content.

Lisa Riedle indicated that this course is part of a module and that a document would be coming before the Graduate Council at a future date regarding this module and the changes made.

Second reading for this course will be at the May 6, 2004 Graduate Council meeting.


(From the March 24, 2004 Graduate Council minutes -

- **Current title in the computer system** – Taguchi Methods for Robust Design
- **Current catalog description and prerequisites in the computer system** - Overview of Taguchi methods. Introduction to quality loss function, definition of system, controllable factors, uncontrollable factors (noise factors), and output (response). Quantitative measures of quality characteristics of a system. Mean-squared deviation and overall evaluation criterion (OEC). Types of factors, number of levels for a factor, linearity and nonlinearity of response, signal-to-noise (S/N) ratio, and analyzing data from multiple sample (replicated or repeated) tests. Experiments with two two-level factors and three two-level factors. Orthogonal arrays (OA) and their properties. Experiment planning by interdisciplinary team and computation of factor effects. Uses of two-level, three-level, four-level, and mixed-level OA and their applications. Demonstration of QT 4 software for conducting experiments and analyzing data collected from experiments. Case studies to illustrate application of each OA. Analysis of Variance (ANOVA) strategy, calculations, and table. Pooling of factors or factor interactions, confidence interval for prediction, and test of hypothesis for significance. Selection of OA using the total DOF, triangular table, linear graphs, formula for computations. OA for designing experiments with mixed-level factors. Analysis of experiments involving multiple criteria and examples. Comparison of old and new designs using S/N ratio, loss function, and examples. Guidelines for planning experiments. Dynamic quality characteristics, models for various types of systems, examples, and analysis of data from experiments. Many applications involving dynamic quality characteristics will be illustrated using examples. Use of case studies to illustrate concepts. Prerequisites: Math 4030, Math 6030, Math 6050, or graduate standing and consent of instructor.

Lisa Riedle answered questions.

Question - B J Reed – are the prerequisites were offered online. Answer – prerequisite should only be Mathematics 6030. Mathematics 6030 is no longer an active course.

Question – B J Reed – prerequisite “or graduate standing and consent of instructor” is that what you really want? Answer – Lisa Riedle will ask the instructor. She will also ask the instructor to redo the course description.
Lisa Riedle indicated that the title would be decided at a department meeting April 16, 2004. Results of that decision and a new catalog description would be presented at the May 6, 2004 Graduate Council meeting.

10. Reports from Graduate Programs and the Graduate School regarding mission/statements of purpose, measurable student outcomes, and assessment – David Van Buren.

(From the March 25, 2004 Graduate Council minutes: “David Van Buren handed out a sheet showing the APC criteria for purpose statement, goals and assessment. Each program owns its own statement. Bringing them to the Graduate Council for information only, not for approval. However, the Graduate Council should approve the School of Graduate Studies statement of purpose.

Dr. Van Buren handed out a draft copy of the graduate school statement of purpose prepared by the subcommittee. He went over the draft and how it was developed. He noted that the agricultural industries program is not on the list because that program is currently “on hold” and no longer has any active graduate students. It will be the decision of the School of Agriculture and Dean Ford whether to reopen the Agricultural Industries major. Until then it will be in an inactive status. Program is not closed. It can be reactivated in house. He asked for any suggestions or recommendations regarding the School of Graduate Studies statement of purpose. Discussion ensued.

Cheryl Banachowski-Fuller made a motion to approve the School of Graduate Studies statement of purpose as is. Seconded by Kimberly Tuescher. Motion passed.

David Van Buren then asked where each of the programs was with their statements. He indicated that maybe the subcommittee could look over the different mission statements for fluency without the School of Graduate Studies.

Statements were handed out at the meeting for the following areas:

- Computer Science
- Counselor Education
- Criminal Justice
- Engineering
- Industrial Technology Management
- Master of Science in Education (3 of 5 programs)
- Project Management

David Van Buren suggested that everyone look over the statements and bring back suggestions.

Linda Bouck handed out the mission statement for the Industrial Technology Management program.

Dr. Van Buren indicated that a subcommittee would review the mission statements and make a recommendation to the Graduate Council at a future date. Dr. Van Buren asked that anyone with suggestions email him by a week from today. Subcommittee members are – David Van Buren, David Braun y Harycki, Alison Bunte, Linda Bouck, Cheryl Banachowski-Fuller and Lisa Riedle.

11. Other business.

Moved from “for information only” –


5. Number changes – Industrial Engineering –


Discussion about whether the number changes in items 4 and 5 should be “for information only”. Decided they should be considered new courses and this would be their first reading. No
undergraduate counterparts. The old courses will be dropped. Moved to under “New Business”. Discussion ensued. Second readings for these courses will be at the May 6, 2004 Graduate Council meeting.

Meeting adjourned at 4:26 p.m. on a motion by Tom Caywood and seconded by Art Ranney.

**Items for information only –**

1. *Project Management 7060 – title update* – Bill Haskins reported that the actual title for Project Management 7060 (approved at the March 25, 2004 Graduate Council meeting) is *Advanced Tools and Techniques for Project Management* instead of *Project Management Tools and Techniques* as reported in the March 25, 2004 Graduate Council minutes.


5. *Number changes – Industrial Engineering –*


   Discussion about whether the number changes in items 4 and 5 should be “for information only”. Decided they should be considered new courses and this would be the first reading. Moved to under “New Business”. Discussion ensued. Second readings for these courses will be at the May 6, 2004 Graduate Council meeting.

6. *Course descriptions updated –*


   - **Old description** - Introduction - Motivation for Design for Manufacturability, Product Development Realities, Designing Products for Manufacturability, Importance of Concept Architecture Optimization, Benefits of DFM; Design Philosophy - Design Considerations and Implementation, DFM Vs Design Freedom and Design Time; Concurrent Engineering - Teams, Organizational Structures, QFD, Product Architecture; Flexibility - Lean Production, Build-to-Order, Mass customization, Designing Flexible Products and Designing for Flexible Operations; Standardization - vis-a-vis parts, materials, processes; Cost Minimization - Minimizing Costs in Functions That Lead to Efficient Manufacturing; Total Cost - Measurement, Drivers, Accounting, Activity Based Costing; DFM Strategies for Product Design - Guidelines for Assembly, Fastening, Assembly Motion, Test, Standardization; Guidelines for Part Design - Part Design Guidelines, Tolerancing and Automation Guidelines; Design for Quality - Effects of

- **New description** – A major portion of the costs and in turn the profitability of manufacturing organizations are affected by the quality of the design of their products. Building quality into the design will call upon engineers to systematically design a product and/or process so that it can be produced with lowest costs, rapid response time, and meet customers’ expectations. This will require the integration of design, manufacturing, management, and economic principles. The course will address this overall integration and focus on the design for manufacturing aspects so as to provide faster time to market, productive utilization of equipment, faster delivery, improved quality, reduced cost, and effective continuous improvement. Students will be able to systematically design a product and/or process so that it can be produced with lowest costs, rapid response time, and meet customers’ expectations. In doing so, they will be able to identify opportunity for design, address technical considerations of design & manufacturing, and make a business decision on feasibility of design.

- **Mechanical Engineering 7830, Systems Engineering Management** – effective spring 2004.  **Documentation included in packet sent April 8, 2004.**


- **New description** – New technologies and time constraints need to meet the challenges of satisfying customer needs such as performance, quality, and over-all cost effectiveness. This sets up a framework for effective system engineering and management of complex systems. The systems engineering effort needs to integrate a wide variety of key design disciplines, apply robust design methods and tools in a manner as to achieve system engineering objectives, assess and control through design reviews, evaluations, feedback and corrective action. The management issues pertaining to the application of systems engineering to various projects is equally important. Principles of System Engineering Management Plan (SEMP), organizational aspects of Systems Engineering such as functional, product line, and matrix structures, and interfaces between the customer, the producer, and suppliers are some key topics that need to be addressed as part of Systems Engineering Management.

7. **Credit change – UUCC Document 03-61 – Counselor Education 4600/6600, Measurement for Counselors and Educators** – change credits from 3 credits to 1-3 credits – effective fall 2004 – Kimberly Tuescher.  **Documentation included in packet sent April 8, 2004.**

- **Rationale for change** – In the cross-categorical special education program students enroll for course work covering areas where they do not have demonstrable skills needed for DPI licensure in one or more of the several special education categories. Each student in the program develops a portfolio to document college level learning that demonstrates the mastery of specific competencies required for DPI licensure. When students have demonstrated mastery of some, but not all, of the required assessment
instruments/techniques, they may need only a portion of the course content in CE 4600/6600.


GRADUATE COUNCIL MEETING DATES 2003-2004

| September 18, 2003 | January 29, 2004 |
| October 23, 2003  | February 19, 2004 |
| November 20, 2003 | March 25, 2004   |
| December 11, 2003 | April 15, 2004   |
|                   | May 6, 2004      |

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

GRADUATE COUNCIL MEMBERSHIP FOR 2002-2003

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
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
Theron Parsons – elected faculty (term expires end of 2005 summer session)
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