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## **University of Northern Iowa Graduate College Curriculum Committee Minutes, October 12, 2005**

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**MINUTES OF GRADUATE COLLEGE CURRICULUM COMMITTEE**

**#12**

**October 12, 2005**

Present: Dahms, Fahmy, Gerrath, Gladden, Joslyn, Mackay, Mitra, Schumacher-Douglas, Wallace  
Alternate: S. Lyle/C. Neuhaus  
Guests: C. Chancey, T. Davis, C. Haselhuhn, B. Hetrick, S. Kirmani, C. Lee, C. Miller, G. Perreault, E. Wallingford, J. Walters

The meeting was called to order by Chair Joslyn at Noon in Studio IT, Lang 245.

**I. Welcome and Introduction**

Chair Joslyn welcomed all present, and members and guests introduced themselves.

**II. Approval of Minutes**

Chair Joslyn asked members to review GCCC Minutes #11, October 5, 2005.

Mitra moved, Fahmy seconded to approve minutes. Wallace stated all references to Department of HPELS should be corrected to School of HPELS. Question was called on the motion. Motion carried and minutes were approved as amended.

**III. Review of Curriculum Review Procedures**

Joslyn stated College curriculum packets would be reviewed by department as follows: Motion to approve the specified department, a second to that motion, discussion, and vote.

Joslyn indicated discussion would be limited to evaluating university-wide impact and compliance with curriculum policies and procedures. Joslyn also indicated GCCC does not need to address budgetary issues if the Dean of the college has approved.

**IV. Tabled Items from COE Packet Originally Reviewed October 5**

**A. Educational Psychology Department**

- < 200:109g - consultation
- < Restatement of Specialist in Education/Major in School Psychology Program

It was confirmed consultation had taken place for 200:109g with no objection.

Haselhuhn indicated a corrected version of the restatement of Major for the Specialist in Education School Psychology Major has been approved by the College of Education and has been sent to Diane Wallace.

Fahmy moved, Schumacher-Douglas seconded to approve 200:109g and the correction to the Specialist in Education School Psychology Major. Motion carried and 200:109g and the Specialist in Education School Psychology Major restatement were approved.

**B. Library Consultations for:**

- < 410:1xxg *Environmental Health, Field Methods, Technology, and Laboratory Applications* (new course)
- < 410:3xx[389] *Health Promotion and Education Seminar* (new course)
- < 410:3xxg *Health Disparities* (new course)
- < 410:3yy *Theoretical Foundations of Community and Public Health Education* (new course)

< 430:1xxg *Community Planning Workshop* (new course)

Tom Davis stated library consultation for the above five courses had occurred and it was determined library resources were sufficient to support these courses.

### C. Clarification on Course

< 410:3xxg *Health Disparities* (new course)

Tom Davis confirmed this course is intended as part of the intensive study area in the doctoral Community Health Education program, and that the "g" in course number and "junior standing" in prerequisites should be deleted.

Joslyn inquired whether this revision has been submitted and approved by the COE, and Davis responded they were in the process.

Gladden moved, Dahms seconded to table this course to 11/9. Motion carried.

## V. Review of College of Natural Sciences Curriculum Packet (Graduate)

Editorial Notes:

< Per Graduate Council decision, all "g" courses must have "junior standing" designated as a prerequisite (but **not** "junior standing or consent of instructor"). D. Wallace will handle this editorially, and no specific changes in the abstract relative to this will be noted in the minutes.

< Course numbers which have changed and are denoted in abstract under the old number (as well as those not in abstract but in catalog) will be edited by D. Wallace throughout the curriculum review and catalog process. No specific changes in the abstract relative to this will be noted in the minutes.

Joslyn stated the new Professional Science Masters degree program was part of the Departments of Biology, Chemistry, Mathematics, and Physics. Joslyn asked members how they wished to proceed on the review/approval of the CNS packet. It was the consensus of the committee to review/vote on all curricular items within each department with the exception of the new Professional Science Masters Degree (PSM) programs, and then review/vote separately on the new Professional Science Masters Degree (PSM) programs.

### A. Biology Department

Gerrath moved, Gladden seconded to approve Biology Department graduate curriculum packet, with the exception of the new PSM degree program.

Gerrath summarized pertinent graduate curriculum questions/issues within the Biology Department curriculum packet, and motions, discussion, and voting was as follows:

< 840:1xxg[105g] *Wildlife Ecology and Management* (new course)

< 840:1xx[119] *Introduction to Biotechnology* (new course)

< 840:1xxg[121g] *Plant Biotechnology* (new course)

< 840:1xxg[127g] *Bioinformatics Applications for Biology* (new course)

< 840:1xxg[129g] *Genomics and Proteomics* (new course)

< 840:2xx[280] *Advanced Analytical Techniques* (new course)

< 840:180g *Restoration and Management of Natural Lands* (change title, hours, description, and prerequisites)

< Master of Arts Degree: Major in Biology (restatement)

< Master of Science Degree: Major in Biology (restatement)

Fahmy inquired as to the number of new courses versus dropped courses. Hetrick replied that all the new courses were part of the new PSM degree, and provide a seamless transition for students along the way. Hetrick stated these courses will give greater breadth to the program.

Mitra asked if the department could elaborate on the new course 820:2xx[209] *Business Management for Science Professionals* which is listed in the Physics Department abstract.

Chancey stated this course will be part of the new PSM degree. Chancey stated industry has indicated that professional trained students need advanced content knowledge and grounding in different parts of business and additional courses in other areas besides their major degree. Chancey stated this course will be both taught and coordinated by College of Business Administration, but the assessment of the course will be done by College of Natural Sciences.

Question was called on the motion to approve, with the exception of the new PSM degree programs. **Motion carried and Biology Department graduate curriculum was approved, with the exception of the new PSM degree programs.**

## **B. Chemistry Department**

Gerrath moved, Gladden seconded to approve Chemistry Department graduate curriculum packet, with the exception of the new PSM degree program. Gerrath summarized pertinent graduate curriculum questions/issues within the Department of Chemistry curriculum packet, and motions, discussion, and voting was as follows:

< 860:2xx[254] *Advanced Biochemistry* (new course)  
Members expressed no concern regarding the above course.

Question was called on the motion to approve, with the exception of the new PSM degree program. Motion carried and **Chemistry Department graduate curriculum was approved, with the exception of the new PSM degree program.**

## **C. Computer Science Department**

Gerrath moved, Gladden seconded to approve Computer Science Department graduate curriculum packet. Gerrath summarized pertinent graduate curriculum questions/issues within the Department of Computer Science curriculum packet, and motion, discussion, and voting was as follows:

< 810:141g *System Security* (change description and prerequisites)  
< 810:161g *Artificial Intelligence* (change description)  
< 810:188g *Topics in Computer Science* (change prerequisites)

It was stated the changes reflected a change in focus to better reflect what faculty were teaching.

Question was called on the motion to approve. Motion carried and **Computer Science Department graduate curriculum was approved.**

## **D. Earth Science Department**

Gerrath moved, Gladden seconded to approve Earth Science Department graduate curriculum packet. Gerrath summarized pertinent graduate curriculum questions/issues within the Department of Earth Science curriculum packet, and motion, discussion, and voting was as follows:

< 870:1xxg[124g] *Air Dispersion Modeling* (new course)  
< 870:1xxg[177g] *Measurement and Analysis of Air Quality* (new course)  
< 870:115g *Volcanology* (change description)  
< 870:142g *Igneous Petrology* (change description and prerequisites)

< 870:143g *Geochemistry* (change description)

J. Walters commented that although the Earth Science Department does not have a graduate degree program, the new courses addressed the growth in the meteorology field.

Question was called on the motion to approve. Motion carried and **Earth Science Department graduate curriculum was approved.**

#### E. Industrial Technology Department

Gerrath moved, Gladden seconded to approve Department of Industrial Technology graduate curriculum packet. Gerrath summarized pertinent graduate curriculum questions/issues within the Department of Industrial Technology curriculum packet, and motions, discussion, and voting was as follows:

- < 330:113g *Manufacturing Tooling* (change prerequisites)
- < 330:122g *Advanced CAD and Modeling* (change prerequisites)
- < 330:129g *Linear Control Systems* (add "g" and change prerequisites)
- < 330:132g *Applied Metallurgy* (change prerequisites)
- < 330:135g *Design for Manufacturing* (change prerequisites)
- < 330:137g *Tooling Practices in Metal Casting* (change prerequisites)
- < 330:141g *Foundry Research Practicum* (drop)
- < 330:152g *Advanced Analog Electronics* (change prerequisites)
- < 330:155g *Finite Element Analysis* (change prerequisites)
- < 330:156g *Advanced Digital Electronics* (change prerequisites)
- < 330:157g *Real-Time Industrial Computing* (change title and prerequisites)
- < 330:163g *Advanced Copy Preparation* (change prerequisites)
- < 330:164g *Programmable Logic Controllers* (change prerequisites)
- < 330:172g *Industrial Materials* (change description and prerequisites)

Fahmy clarified that for course 330:137g the prerequisite course "330:141" referred to the new course 330:1xx *Transport Phenomena for Technologists*. Fahmy stated the proposed changes were taking care of unnecessary prerequisites and also in response to being contemporary in fields.

Question was called on the motion to approve. Motion carried and **Industrial Technology Department graduate curriculum was approved.**

#### F. Mathematics Department

Gerrath moved, Gladden seconded to approve Department of Mathematics graduate curriculum packet, with the exception of the new PSM degree program. Gerrath summarized pertinent graduate curriculum questions/issues within the Department of Mathematics curriculum packet, and motions, discussion, and voting was as follows:

- < 800:2xx[243] *Topics in Discrete Mathematics* (new course)
- < 800:2XX[267] *Non-Euclidean Geometry* (new course)
- < 800:2xx[271] *Teaching Statistics at the Secondary Level* (new course)
- < 800:2XX[280] *Mathematics at the Secondary Level* (new course)
- < 800:2xx[281] *Current Research in School Mathematics* (new course)

It was stated there were no library consultations for the above courses. Catherine Miller responded that these courses have previously been taught as "studies in" and "seminar" numbers.

Gladden moved, Dahms seconded to table the above five courses to the October 26 meeting, pending library consultations. Motion carried.

- < 800:1xxg[122g] *Statistical Computing* (new course)

- < 800:1xxg[123g] *Design and Analysis of Experiments* (new course)
- < 800:1xxg[124g] *Modeling for Industrial Mathematics* (new course)
- < 800:1xxg[125g] *Geometric Modeling for CAD* (new course)
- < 800:1xxg[126g] *Operations Research Models* (new course)
- < 800:1xxg166g] *Advanced Euclidean Geometry* (new course)
- < 800:2xx[272] *Advanced Statistical Methods* (new course)
- < 800:2xx[274] *Project Management for Science Professionals* (new course)
- < 800:2xx[275] *Industrial Internship/Project* (new course)
- < 800:2xx[277] *Applied Numerical Analysis* (new course)
- < 800:143g *Combinatorics* (change description)
- < 800:157g *Statistical Quality Control* (change title)
- < 800:165g *Introduction to Modern Geometry* (change title and description)
- < 800:180g *History of Mathematics: To the Calculus* (change description)
- < 800:185g *History of Mathematics: From the Calculus to the 21st Century* (change title and description)
- < 800:189g *Geometric Transformations* (change description and prerequisites)
- < 800:265 *Geometric Symmetry* (drop)
- < 800:266 *Topics in Geometry* (change description)
- < Major in Mathematics (restatement of MA program)

Members expressed no concerns regarding the above courses and restatement.

Question was called on the motion to approve, with the exception of the new PSM degree program and tabled items. Motion carried.

## G. Physics Department

Gerrath moved, Gladden seconded to approve Department of Physics graduate curriculum packet, with the exception of the new PSM degree program. Gerrath summarized pertinent graduate curriculum questions/issues

within the Department of Physics curriculum packet, and motions, discussion, and voting was as follows:

- < 820:2xx[209] *Business Management for Science Professionals* (new course)
- < 820:2xx[215] *Corporate/Industrial Problem Solving* (new course)
- < 820:2xx[289] *Professional Science Masters Seminar* (new course)
- < 820:2xx[295] *Professional Science Master's Internship* (new course)
- < 880:1xxg[144g] *Introduction to Nanoscience and Nanotechnology* (new course)
- < 880:1xxg[148g] *Intermediate Nanoscience and Nanotechnology* (new course)
- < 880:1xxg[155g] *Magnetism and Magnetic Materials* (new course)
- < 880:1xxg[160g] *Experiment Design* (new course)
- < 880:2xx[205] *Modeling and Simulation of Physical Systems* (new course)
- < 880:2xx[220] *Computer Interfacing and Signal Processing* (new course)
- < 880:120g *Elementary Atomic and Nuclear Physics* (drop)
- < 880:134g *Environmental Applications of Physics* (drop)
- < 880:140g *Modern Optics: Holography and Imaging* (change title)
- < 880:142g *Musical Acoustics* (drop)
- < Master of Arts: Major in Physics Education (drop)
- < Statement regarding Combined B.A./P.S.M.

Chancey stated the courses are all related to the new PSM degree program. He also stated there was an impact on the undergraduate Applied Physics major and courses were revised to better integrate.

It was noted the Physics Department abstract summary reflected an objection from Computer Science regarding new course 880:2xx[205] *Modeling and Simulation of Physical Systems*. Chancey stated there was an objection to the original proposed title, but the title was changed and the objection was resolved.

Question was called on the motion to approve, with the exception of the new PSM degree program. Motion carried.

## H. Science

Gerrath moved, Gladden seconded to approve the Science graduate curriculum packet. Gerrath summarized pertinent graduate curriculum questions/issues within the Science curriculum packet, and motions, discussion, and voting was as follows:

< Specialist Degree: Major in Science Education (drop)

It was confirmed that Curriculum and Instruction had been consulted.

Question was called on the motion to approve. Motion carried.

(Editorial note from Wallace: With the drop of the Specialist Degree Major in Science Education, there will be no active Specialist Degree majors and this degree will not be listed in future catalogs.]

## I. Professional Science Masters Programs

Gerrath moved, Gladden seconded to approve the new Professional Science Masters degree programs within the Departments of Biology, Chemistry, Mathematics, and Physics curriculum packets. Gerrath summarized pertinent graduate curriculum questions/issues within the Professional Science Masters degree programs, and motions, discussion, and voting was as follows:

< Biology Department -- Professional Science Master in Biotechnology (new PSM program)

< Biology Department -- Professional Science Master in Ecosystem Management (new PSM program)

< Chemistry Department -- Professional Science Master in Applied Chemistry and Biochemistry (new PSM program)

< Mathematics Department -- Professional Science Master's Degree in Industrial Mathematics (new PSM program - two options)

< Physics Department -- Professional Science Master's in Applied Physics (new PSM program)

Mitra inquired as to the number of anticipated students for these programs.

Kirmani responded Mathematics anticipated starting with approximately 7-10 students. Chancey responded that Physics would have slim funding in the beginning and anticipate the first 3 years of enrollment as 5 the first year, 7 the second year, and 10 the third year.

Mackay stated that she had requested each department to provide the minimum 200-level hour requirement, thesis/non-thesis designation, and comprehensive exam requirement for each of these programs. Mackay verified that she had received this information from each of the above four departments and this would be given to Wallace for catalog publication.

Joslyn stated the PSM is an excellent example of what UNI does so well -- preparing students well for graduate and professional programs. Joslyn also commented the PSM degree addresses the university mission and is a great program for UNI.

Question was called on the motion to approve the new PSM degree programs. Motion carried.

Chair Joslyn thanked Gerrath for her thorough review and presentation of the CNS curriculum packet.

## VI. Curricular Items **Tabled/Postponed/Pending/Deferred**

(Reviewed/discussed at October 5 and October 12, 2005 meetings)

School of HPELS

410:3xxg

(Number and prerequisite was clarified at October 12 meeting - tabled to November 9 to allow HPELS to submit for COE approval)

(Reviewed/discussed at October 12, 2005 meeting)

**Mathematics Department**

800:2xx[243] *Topics in Discrete Mathematics* (new course)

800:2XX[267] *Non-Euclidean Geometry* (new course)

800:2xx[271] *Teaching Statistics at the Secondary Level* (new course)

800:2XX[280] *Mathematics at the Secondary Level* (new course)

800:2xx[281] *Current Research in School Mathematics* (new course)

(Tabled to October 26 pending library consultations)

Chair Joslyn announced that Gladden had agreed to review/present the graduate interdisciplinary programs at the November 9 meeting.

Chair Joslyn announced the next GCCC meeting will be Wednesday, **October 26, at Noon**. The College of Humanities and Fine Arts graduate curriculum packet will be reviewed. Location will be **Studio IT, Lang 245**.

Fahmy moved, Schumacher-Douglas seconded to adjourn. Motion carried and meeting adjourned at 12:40 p.m.

Respectfully submitted,  
Diane Wallace, secretary

dmw

cc: Graduate Curriculum Committee  
Record Analysts/Registrar's Office  
GCCC Alternates (S. Lyle, G. Perreault)  
UCC Alternates (P. East, T. Hall, T.Kessler)  
Coleen Wagner  
Shirley Uehle  
Guests