MINUTES OF GRADUATE COLLEGE CURRICULUM COMMITTEE  
#17  
October 3, 2007


Alternates: M. Chin/J. Gerrath, T. Fogarty/D. Dahms, L. Terlip/K. Mitchell

Absent: B. Hawbaker


The meeting was called to order by Chair Victoria DeFrancisco at Noon in Lang 365.

I. Welcome and Introduction

DeFrancisco welcomed all present, and members and guests introduced themselves.

II. Approval of Minutes

Chair DeFrancisco asked members to review GCCC Minutes #016, September 26, 2007.

Terlip moved, Fogarty seconded to approve minutes. Motion carried.

III. Review of Curriculum Review Procedures

DeFrancisco 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.

IV. 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.

DeFrancisco asked Chin to present the College of Natural Sciences graduate curriculum packet.

A. Biology Department

Chin moved, Fogarty seconded to approve Biology Department graduate curriculum packet. Mitra summarized pertinent graduate curriculum questions/issues within the Department of Biology curriculum packet, confirmed consultations had been done with no unresolved issues, and motions, discussion, and voting was as follows:

< 840:105g Wildlife Ecology and Management (change prerequisites)
< 840:114g Comparative Animal Physiology (change prerequisites)
< 840:121g Plant Biotechnology (change hours, description, and prerequisites)
< 840:122g Plant Physiology (change prerequisites)
< 840:127g Bioinformatics Applications for Biology (change prerequisites)
< 840:128g Cell Biology (change prerequisites)
< 840:129g Genomics and Proteomics (change prerequisites)
< 840:131g Animal Behavior (change prerequisites)
< 840:138g Vertebrate Physiology (change prerequisites)
< 840:142g Evolutionary Biology (change prerequisites)
< 840:143g Biogeography and Origins of Diversity (change prerequisites)
< 840:144g Virology (change prerequisites)
< 840:146g Developmental Biology of Animals (change prerequisites)
< 840:149g Applied and Environmental Microbiology (change prerequisites)
< 840:150g Immunology (change prerequisites)
< 840:153g Recombinant DNA Techniques (change description and prerequisites)
< 840:154g Aquatic Ecology (change prerequisites)
< 840:155g Ecotoxicology (change prerequisites)
< 840:157g Biostatistics (change prerequisites)
< 840:162g Ornithology (change prerequisites)
< 840:164g Mammalogy (change prerequisites)
< 840:166g Plant Systematics (change prerequisites)
< 840:167g Conservation Biology (change prerequisites)
< 840:168g Ecology (add g, change hours and prerequisites)
< 840:172g Developmental Plant Anatomy (change prerequisites)
< 840:173g Measuring Plant-Environmental Interactions (change prerequisites)
< 840:178g Fire Management in Ecosystems (change prerequisites)
< 840:180g Restoration Ecology (change prerequisites)
< 840:184g Natural History Interpretation Techniques (change prerequisites)
< 840:280 Advanced Analytical Techniques (change description)

R. Seager indicated the new course 840:1xx[100] was added as a prerequisite and is the primary reason for most of these 100g-level changes in course prerequisite. Members expressed no questions/concerns regarding these courses.

<  PSM: Major in Biotechnology (restatement)

R. Seager indicated this major had been restated to give more flexibility by listing **types** of courses rather than specific courses that were needed for admission consideration and this revision is indicated in the first paragraph, last sentence.

R. Seager indicated the PSM degree is a degree in which business and science courses are joined to prepare students for a business-oriented world. The courses which are common to all PSM degree students (820:209, 820:215, 820:289, and 820:295) are taught through Science and Science Education.

There were no further questions/concerns regarding this restatement.

<  PSM: Major in Ecosystem Management (restatement)

R. Seager indicated this major also had been restated to give more flexibility by listing **types** of courses rather than specific courses that were needed for admission consideration and this revision is indicated in the first paragraph, last sentence.

Fogarty questioned the 4-6 hours for the Internship to give a total of 30 hours for the major. Seager stated the 820:295 Internship should be corrected to 4 hours rather than 4-6 hours.

There were no further questions/concerns regarding this restatement.
Question was called on the motion to approve as amended. **Motion carried and Department of Biology graduate curriculum was approved as amended.**

B. **Chemistry and Biochemistry Department**

Chin moved, Fogarty seconded to approve Chemistry and Biochemistry Department graduate curriculum packet. Chin summarized pertinent graduate curriculum questions/issues within the Department of Chemistry and Biochemistry graduate curriculum packet, confirmed consultations had been done with no unresolved issues, and motions, discussion, and voting was as follows:

- 860:1xxg[144g] *Introduction to Nanoscience and Nanotechnology* (new course)
- 860:1xxg[148g] *Intermediate Nanoscience and Nanotechnology* (new course)
- 860:2xx[211] *Corporate Chemistry* (new course)

I. Simet indicated 860:[144g] and 860:[148g] were cross listed with existing courses 880:144g and 880:148g, and the new course 860:[211] will be required in the PSM degree Major in Applied Chemistry and Biochemistry. Members expressed no questions/concerns regarding these course proposals.

- MS: Major in Chemistry

I. Simet indicated this M.S. degree was restated to include more chemistry content. Members expressed no questions/concerns regarding this restatement.

- PSM: Major in Applied Chemistry and Biochemistry

I. Simet indicated this P.S.M. degree was restated to include more courses with a business flavor. Members expressed no questions/concerns regarding this restatement.

Question was called on the motion to approve. **Motion carried and Department of Chemistry and Biochemistry graduate curriculum was approved.**

C. **Computer Science Department**

Chin moved, Terlip seconded to approve Computer Science Department graduate curriculum packet. Chin summarized pertinent graduate curriculum questions/issues within the Department of Computer Science curriculum packet, confirmed consultations had been done with no unresolved issues, and motion, discussion, and voting was as follows:

- 810:066 *Computing for Bioinformatics II* (add g, change number to 810:166g, description and prerequisites)
- 810:112g *User Interface Design* (change prerequisites)
- 810:114g *Database Systems* (change prerequisites)
- 810:115g *Information Storage and Retrieval* (change prerequisites)
- 810:143g *Operating Systems* (change prerequisites)
- 810:147g *Networking* (change prerequisites)
- 810:148g *Topics in Computer Systems* (drop)
- 810:161g *Artificial Intelligence* (change prerequisites)
- 810:172g *Software Engineering* (change prerequisites)
- 810:175g *Software Testing* (change prerequisites)
- 810:178g *Topics in Software Engineering* (drop)
- 810:182g *Formal Languages* (drop)
- 810:188g *Topics in Computer Science* (change prerequisites)
- 810:241 *Distributed Systems* (drop)
- 810:250 *Applying Education Theory to Computer Science Teaching* (drop)
< 810:251 Computers, Computer Science, and Education (drop)
< 810:253 Problems in Teaching Computer Science (drop)
< 810:255 Computer Science Instructional Software (drop)
< 810:262 Machine Learning (drop)

It was pointed out that existing course 810:066 was being changed to 100g-level. P. East explained that this course will prepare students to specialize in collecting, analyzing and manipulating an increasing quantity of information and is suitable for graduate students as it includes advanced training in specialized areas.

The 200-level courses are being dropped since they were part of the M.A. in Computer Science Education which is being dropped.

< M.A. Major in Computer Science Education (drop major)

It was confirmed there were no students in this major. Members expressed no further questions/concerns regarding this major being dropped.

< M.S. Major in Computer Science (restatement)

P. East indicated this restatement clarifies the difference between thesis and non-thesis options. Members expressed no questions/concerns regarding this restatement.

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

D. **Earth Science Department**

Chin moved, Fogarty seconded to approve Earth Science Department graduate curriculum packet. Chin summarized pertinent graduate curriculum questions/issues within the Department of Earth Science curriculum packet, confirmed consultations had been done with no unresolved issues, and motion, discussion, and voting was as follows:

< 870:173g Environmental Hydrology (change prerequisites)
< 870:175g Hydrogeology (change prerequisites)

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

E. **Physics Department**

Chin moved, Fogarty seconded to approve Physics Department graduate curriculum packet. Chin summarized pertinent graduate curriculum questions/issues within the Department of Physics graduate curriculum packet, confirmed consultations had been done with no unresolved issues, and motion, discussion, and voting was as follows:

< 820:215 Corporate/Industrial Problem Solving (change title)
< 880:145g Vibrations & Sound (drop)
< 880:152g Electronics I (change title)
< 880:154g Electronics II (change title and description)
< 880:174g Applied Quantum Physics (change title, hours, and description)

Members expressed no questions/concerns with the above course proposals.
Question was called on the motion to approve. **Motion carried and Physics Department graduate curriculum packet was approved.**

**F. Science and Science Education**
Chin moved, Fogarty seconded to approve Science and Science Education graduate curriculum packet. Chin summarized pertinent graduate curriculum questions/issues within the Science and Science Education graduate curriculum packet, confirmed consultations had been done with no unresolved issues, and motion, discussion, and voting was as follows:

< 820:290 *Trends in Science Education* (change title and description)

Members expressed no questions/concerns regarding this course.

< MA Major in Science Education (restatement)

C. Lee indicated the total number of hours required for this major is being reduced by 3 hours. Members expressed no questions/concerns regarding this restatement.

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

**G. Industrial Technology Department**

Chin moved, Fogarty seconded to approve Industrial Technology Department graduate curriculum packet. Chin summarized pertinent graduate curriculum questions/issues within the Industrial Technology Department graduate curriculum packet, and motion, discussion, and voting was as follows:

< 330:2xx[225] *Logistics and Supply Operations* (new course)

DeFrancisco and Chin indicated Marketing Department has objected to the new course 330:2xx[225] and the issue has not been resolved. DeFrancisco indicated representatives from the Marketing Department were present at this meeting so GCCC members could hear positions from both departments regarding the new proposed course 330:[225]

Mohammed Rawwas and Karthik Nanjunda Iyer (Marketing Department) were present at the meeting to state Marketing's position.

Rawwas and Iyer stated the new course 330:[225] is a duplication of the Marketing course 130:161 which they both teach. One of the criteria COBA is held to for AACSB accreditation is that there is no duplication of their courses across campus. Rawwas and Iyer indicated the 130:161 course is offered once per year. They suggested with further consultation with the Industrial Technology Department, there is the possibility of adding a "g" to the 130:161 course and also could revise the prerequisites to specify different prerequisites for Industrial Technology students.

Fahmy responded course 330:[225] was not duplication of course 130:161 and the content is different. Fahmy indicated 130:161 is an undergraduate class for which graduates can't get graduate credit, and since 130:161 gives priority registration for business students it is difficult for Industrial Technology students to enroll in 130:161. Regarding course prerequisites, Fahmy stated course prerequisites are there for a reason and if they can be waived, then they are not necessary.

Fahmy stated course 130:161 does not cover the content industry wants to be covered. He indicated John Deere won't send their students to 130:161 because they want the content that would be included in the proposed new course 330:[225]. Fahmy indicated 330:[225] would be offered on-site (at John Deere), on campus, and potentially via Internet.
With further discussion, there was no agreement reached and GCCC members expressed that they felt it would be beneficial for both departments to discuss this further in an effort to resolve the issue. Members agreed to table further discussion of new course 330:[225] to November 7 and DeFrancisco asked that Marketing Department and Industrial Technology Department provide written brief summaries to support their positions to give GCCC members a better sense of the issue(s).

Chin introduced discussion of the remaining Industrial Technology graduate curriculum packet.

Terlip indicated she did not review other consultations from the Industrial Technology Department and questioned whether there may be other issues concerning consultation.

After a brief discussion, due to questions regarding other consultations and time constraints to adequately answer those questions, members agreed to table further discussion of the Industrial Technology graduate packet until the October 10 meeting.

H. Mathematics Department

Chin moved, Fogarty seconded to approve Mathematics Department graduate curriculum packet. Chin summarized pertinent graduate curriculum questions/issues within the Mathematics Department graduate curriculum packet, and motion, discussion, and voting was as follows:

- 800:111g *Introduction to Algebraic Thinking for Elementary Teachers* (change prerequisites)
- 800:112g *Introduction to Geometry and Measurement for Elementary Teachers* (change prerequisites)
- 800:113g *Topics in Mathematics for Grades K-8* (change description and prerequisites)

J. Ridenhour indicated the changes in the courses 800:111g, 800:112g, and 800:113g are the result of phasing out the 800:030 course (which is being dropped) and replacing it with the combination of 800:031 and 800:131 in the undergraduate program. Ridenhour indicated when the department curriculum packet was reviewed by the UCC it was discovered these courses needed to be revised to reflect that and these three courses will be reviewed by UCC November 7.

Schumacher-Douglas indicated she would like to review these three changes for possible teacher education implications on the graduate level.

Members agreed to defer courses 800:111g, 800:112g, and 800:113g to November 7 meeting (or sooner if Schumacher-Douglas has reviewed) to allow for teacher education review.

Due to the hour and member time commitments, further discussion of the Mathematics Department graduate curriculum packet concluded and will be continued at the October 10 meeting.

V. Curricular Items Tabled/Postponed/Pending/Deferred

(Originally reviewed/discussed at October 3 meeting)

**Industrial Technology Department**

330:[225] (new course - unresolved objection from Marketing Department)
(Deferred to November 7)

Remainder of graduate curriculum packet (question raised on other consultations - deferred due to meeting time constraints)
(Deferred to October 10)

**Mathematics Department**

800:111g, 800:112g, 800:113g (deferred to allow Schumacher-Douglas to check teacher education)
DeFrancisco announced the next GCCC meeting will be Wednesday, **October 10, at Noon**. The remainder of the Industrial Technology Department and Mathematics Department within the College of Natural Sciences curriculum packet will be reviewed, and also the College of Education curriculum packet. Location will be **Lang 365**.

Meeting adjourned at 1:05 p.m.

Respectfully submitted,
Diane Wallace, secretary

dmw
cc:  UCC
    Coleen Wagner
    Shirley Uehle
    Guests