# Academic Notes 

## ** SPECIAL NOTICES**

## FACULTY ATTENDANCE FORM FOR SPRING COMMENCEMENT

Commencement is a most important celebration for a campus. The participation of faculty in the celebration demonstrates to our graduates, their family members, and even to prospective students how important they are to us. Your participation is requested in the Commencement ceremonies that will be held on May 9, 2009. The Commencement Attendance Form and Faculty Academic Apparel Rental Order Form are available online at http://www.indstate.edu/academicaffairs/commencement-faculty.htm. Apparel rental deadline is April 10, 2009. Together we can make this celebration an event that all of our graduates will never forget. We want and need for them to leave here with nothing but fond memories of a University that provided both a quality education and a caring environment.

## ACADEMIC NOTES PUBLICATION SCHEDULE FOR SPRING 2009

Below is the circulation schedule for the electronic copy of Academic Notes through May 11, 2009. All submissions for inclusion in Academic Notes are due in the Office of Academic Affairs no later than 10:00 a.m. on the Wednesday prior to the distribution of Academic Notes on the following Monday. Submissions must be in hard copy along with an e-mail, disk, or CD with the same information. The electronic version must be formatted either in Word with pages with signatures scanned and inserted as a picture OR PDF saved as text and image. (Do NOT send PDF just saved as an image.) Information submitted to Academic Notes that is not accompanied by an electronic version or that is incomplete or unusable will be returned to the appropriate office. Academic Notes is available using Acrobat Reader at http://www1.indstate.edu/academicaffairs/academic notes.htm

ACADEMIC NOTES PUBLICATION SCHEDULE FOR SPRING 2009

Deadline for Items
March 25
April 1
April 8
April 15

Issue Date
March 30
April 6
April 13
April 20

# THESES, DISSERTATIONS, AND RESEARCH PROJECTS 

## COLLEGE OF ARTS AND SCIENCES: Biology

Jeremy Sheets will defend his thesis entitled Impact of Forest Management Techniques on Bats with a Focus on the Endangered Indiana Myotis (Myotis sodalis), on Monday, March 30, 2009, at 10:00 a.m., in the Science Building, room 361 (Museum conference room.) Members of his committee are: Dr. John O. Whitaker, Jr., Chairperson; Dr. Virgil Brack, Jr. and Dr. Marion T. Jackson.

## COLLEGE OF EDUCATION: Curriculum, Instruction, and Media Technology

Luis Lopez will defend his dissertation entitled Effects of Delayed and Immediate Feedback in the Computer Based Testing Environment, on Thursday, March 19, 2009, at 3:00 p.m., in College of Education ,11th Floor, conference room \#2. Members of his committee are: Dr. Susan Powers, Chairperson; Dr. Melissa Nail and Dr. William Flurkey.

## BOARD OF TRUSTEES

The Board of Trustees approved the organizational structure for the College of Nursing, Health, and Human Services at its October 242008 meeting, as follows:

## Organizational Structure for College of Nursing, Health, and Human Services

The College of Nursing, Health, and Human Services has developed an organizational structure. This structure was developed and approved by the Faculty of the College and it has also been approved by the appropriate University Committees including Faculty Senate. This structure has been reviewed by the Provost Office and has the approval of that office also.

Recommendation: Recommend approval of the new organizational structure for the College of Nursing, Health, and Human Services. The new structure will be effective upon approval by Board of Trustees.

## College of Nursing, Health, and Human Services <br> Organizational Structure

(Approved by College Executive Committee (11-0-0), College Faculty (41-5)1, Curriculum and Academic Affairs Committee (9-0-0), University Faculty Senate Executive Committee (7-0-2), and University Faculty Senate (27-2-0)

## STRUCTURE OF THE DEAN'S OFFICE



Development Director: This is a position funded by the University Foundation with the responsibility to raise funds for the College.

Associate Dean for Student Services: This position will be responsible for student issues, recruitment, and retention for the College.

Associate Dean for Academics: This position has the responsibility for accreditation and curriculum for the College.

Associate Dean for External Affairs: This position will be responsible for agreements with state boards of nursing, government agencies responsible for grants, athletic training licensing, Rural Health Initiative, and other health and community partnerships.

## STRUCTURE OF THE COLLEGE



All departments will report to the Dean. Due to the accreditation of the nursing programs one of the Associate Deans will be a nurse and have oversight of the accredited nursing programs. Effective date: October 24, 2008

## FACULTY SENATE

The University Faculty Senate will meet on Thursday, March 26, 2009, at 3:15 p.m., in HMSU, Dede III.

## Agenda

I. Administrative Report (D. Bradley/J. Maynard)
II. Chair Report

III Other reports:
a. SGA report
b. Special Purpose Advocate
c. Support Staff Council report
III. Memorial Resolutions (D. Collins, CE)
a. Melvin E. "Tony Frazier
b. Russell Leroy Hamm
c. Walter J. Saunders
IV. Minutes for Approval
a. January 22, 2009 meeting
b February 19, 2009 (Notes)
V. Fifteen Minute Open Discussion

VI Information Items (reports accepted, appointments made by EC; other policy events)
a. Approved by CAAC: Maple TA to replace COMPASS
b. URC policy change: No one may quit mid-year and submit a proposal
c. Formation of a University Retention Council: Tom Harris recommended
d. Approval of CoNHHS tenure policy by PTOC (4-0-1)
e. Reconvening of Mission/Values committee
VI. New Business
a. CONHHS Constitution (FAC: 6-0-0, EC: 8-0-0)
V. Old Business
a. Changes to the Faculty Constitution
b. Changes to the By-laws of the Faculty Constitution
c. FAC recommendations for changes to All-University Committees
V. Committee Reports
a. AAC
b. AEC
c. CAAC
d. FAC
e. FEBC
f. GC
g. SAC
h.. URC

## ACALOG NOTE

The format for curriculum proposals has changed to correspond with the structure of Acalog, the new version of the electronic catalogs. Some proposals will be published under the old structure and some under the new structure during this transition period.

## Improved Electronic Catalog

The new electronic version of the undergraduate catalog is posted at
http://www.indstate.edu/academics/catalogs.htm Some advantages of the new format are:

- It is easily searchable and searchable from the internet
- It is easier for students and advisors to find and choose the courses students need
- Students create a personal portfolio of courses in which they are interested
- Links to information such as department web sites, advising information, and video clips can easily be added
- Every page can easily be printed, decreasing the number of printed catalogs

If you have questions, please contact Academic Affairs, extension 3662.

## CURRICULUM

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## UNDERGRADUATE PROPOSALS

## NEW COURSES

## COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

## CHEM 341 - Inorganic Chemistry

3 credits
An introduction to theoretical principles and descriptive chemistry of the elements and inorganic compounds. Includes electronic structure of elements, bonding theories, acids and bases, redox chemistry, solids, and chemical reactions with an emphasis on transition metals.
Prerequisite: CHEM 352.
A-F Grading
Preferred effective term: Fall 2009

## COURSE REVISIONS

## COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

## CHEM 450 - Advanced Organic Chemistry

3 credits
The three fundamental aspects of organic chemistry: structure, reactions, and mechanisms.
Prerequisites: CHEM 352, and successful completion of or concurrent enrollment in CHEM 462 or 465.
Note: No laboratory. Open to graduate students. Graduate students are required to do additional work of a research nature.

Change prerequisites to:
CHEM 450 - Advanced Organic Chemistry
3 credits.
The three fundamental aspects of organic chemistry: structure, reactions, and mechanisms. No laboratory.
Prerequisites: CHEM 352, 352L.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Preferred effective term: Fall 2009

## CHEM 461 - Physical Chemistry I

4 credits
Chemical thermodynamics, including the three laws and phase equilibrium and its applications; chemical equilibrium; imperfect gases and equations of state.
Prerequisites: CHEM 106; MATH 132; concurrent enrollment in CHEM 461L.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature. Unless otherwise stated, all chemistry courses require laboratory work.

Change prerequisites to:

## CHEM 461 - Physical Chemistry I

4 credits

Chemical thermodynamics, including the three laws and phase equilibrium and its applications; chemical equilibrium; imperfect gases and equations of state.
Prerequisites: CHEM 106, 106L; MATH 132.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature. Unless otherwise stated, all chemistry courses require laboratory work.
A-F Grading
Preferred effective term: Fall 2009

## CHEM 462 - Physical Chemistry II

4 credits
Chemical kinetics; transport processes; kinetic theory of gases; introduction to quantum chemistry and application to simple systems.

Prerequisites: CHEM 461, and concurrent enrollment in CHEM 462L.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature. Unless otherwise stated, all chemistry courses require laboratory work.

Change prerequisites to:
CHEM 462 - Physical Chemistry II
4 credits
Chemical kinetics; transport processes; kinetic theory of gases; introduction to quantum chemistry and application to simple systems.
Prerequisites: CHEM 461.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature. Unless otherwise stated, all chemistry courses require laboratory work.
A-F Grading
Preferred effective term: Fall 2009

## COLLEGE OF ARTS AND SCIENCES: Communication

## PSCI 496 - Capstone Course in Legal Studies

3 credits
Introduction to contemporary legal theories. Practical application of knowledge through a moot court exercise. Guidance in applying to law school or entrance into the work force.
Note: Required course for all legal studies majors. Students may not take the course unless they have earned at least 75 credits. Students must earn a C or better in the course. Open to others by permission. Normally scheduled in the spring semester.

Change description to:
PSCI 496 - Capstone Course in Legal Studies
3 credits
Introduction to contemporary legal theories. Practical application of knowledge through a moot court exercise. Guidance in applying to law school or entrance into the work force.
Note: Required course for all legal studies majors. Students may not take the course unless they have earned at least 75 credits. Students must earn a C or better in the course. Open to others by permission.
Preferred effective term: Fall 2009

## PSCI 499 - Senior Seminar in Political Science

3 credits

Lectures, discussion, and research exploring a topic relevant to all fields of political science.
Note: Required of all political science majors, with a grade of C or better necessary for graduation. Open to others by permission. Normally scheduled in the fall semester.

Change description to:
PSCI 499 - Senior Seminar in Political Science
3 credits
Lectures, discussion, and research exploring a topic relevant to all fields of political science.
Note: Required of all political science majors, with a grade of C or better necessary for graduation. Open to others by permission.
Preferred effective term: Fall 2009

## COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Recreation and Sport Management

## RCSM 460 - Organization and Administration of Camping

3 credits
Organization and structure; personnel, program, and site development; business management; food management; health and safety; public relations; committees; and evaluation in the modern camp.
Prerequisite: RCSM 265.
Change prerequisite to:
RCSM 460 - Organization and Administration of Camping
3 credits
Organization and structure; personnel, program, and site development; business management; food management; health and safety; public relations; committees; and evaluation in the modern camp.
Prerequisites: RCSM 262 or consent of instructor.
Preferred effective term: Fall 2009

## PROGRAM REVISIONS

COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics
Chemistry Major (69 credits)
CIP Code: 400501 Major Code: 1421

## Brief Summary:

We are proposing revision and renaming of the three tracks/concentrations of the chemistry program: the current "American Chemical Society Certified" track will be revised and called the "American Chemical Society-Certified" concentration; the current "Biochemistry Emphasis" track will be revised and called the "Pre-Professional" concentration; the current "Business Emphasis" track will be revised and called the "Business" concentration. The American Chemical Society-Certified concentration was designed in accord with new American Chemical Society (ACS) guidelines for bachelor's degree chemistry programs. This concentration will be appropriate for students who plan to attend graduate school in chemistry. The Pre-professional concentration will require two semesters of biochemistry as well as introductory biology courses,
and is designed for students who plan to attend medical, dental, or other professional school. The Business concentration will require several courses in business and economics, and is designed for students who want to pursue a career in marketing, sales, or administration in the chemical or pharmaceutical industry.

We are proposing to create one new concentration (see separate F2 form) which will be called the "American Chemical Society-Certified Biochemistry" concentration. This concentration will differ from the ACS-Certified concentration in that it will require a number of biology courses and a second semester of biochemistry. It also meets the requirements of the ACS for bachelor's degree chemistry programs, so it is appropriate for students who plan to attend graduate school in biochemistry or any other branch of chemistry.

Under the proposed curriculum, all of the concentrations will require at least one foundational chemistry course from each of the five major areas of chemistry (analytical, biochemistry, inorganic, organic, and physical). This is not required under the current curriculum. In addition, the proposed curriculum is more mathematically rigorous than the current curriculum: all concentrations will require two semesters of calculus, calculus-based physics, and at least one semester of calculus-based physical chemistry.

We are proposing a small change to the chemistry minor as well: CHEM 421 will be allowed as an elective, and CHEM 461 will replace CHEM 465 as an elective.

## Student Learning:

These changes to the chemistry program are in response to the new American Chemical Society (ACS) guidelines for bachelor's degree chemistry programs. Two of our concentrations follow these guidelines and will be ACS-certified. Students who complete the chemistry degree under these certified concentrations will be well prepared to enter graduate school and compete with students from other institutions which have ACS-certified programs.

Students who complete any of the four concentrations under the proposed curriculum should be well prepared to pursue employment as chemists, having had courses in all five major areas of chemistry, rigorous calculus-based courses, and hundreds of laboratory hours. In recent years our students have had a high rate of success in obtaining jobs after graduation, so these improvements to the program should only increase that success rate. In surveying the chemistry curricula of peer institutions, we found that the majority of these programs require at least two semesters of calculus, as well as calculus-based physical chemistry. Under the proposed curriculum, our program will be similar to that of our peer institutions, so we expect that our graduates will in the future be even more competitive in the job market relative to graduates from other institutions.

## Proposed Catalog Copy:

Chemistry Major (69 or 75 credits, including extra-departmental requirements) CIP Code: 400501 Major Code:

Chemistry majors must complete the required chemistry, mathematics, and physics courses of the core curriculum together with the courses required for one of the four chemistry
concentrations. Electives must be selected from the list of approved advanced electives courses.

## Core curriculum (50 semester credits)

## Required Chemistry:

CHEM 105 - General Chemistry I 3 credits
CHEM 105L - General Chemistry I Laboratory 1 credit
CHEM 106 - General Chemistry II 3 credits
CHEM 106L - General Chemistry II Laboratory 1 credit
CHEM 321 - Analytical Chemistry 4 credits
CHEM 341 - Inorganic Chemistry 3 credits
CHEM 351 - Organic Chemistry I 3 credits
CHEM 351L - Organic Chemistry Laboratory I 1 credit
CHEM 352 - Organic Chemistry II 3 credits
CHEM 352L - Organic Chemistry Laboratory II 1 credit
CHEM 400 - Senior Seminar in Chemistry 1 credit
CHEM 431 - Biochemistry I 3 credits
CHEM 461 - Physical Chemistry I 4 credits
CHEM 461L - Experimental Physical Chemistry I 1 credit

## Required Mathematics:

MATH 131 - Calculus I 4 credits
MATH 132 - Calculus II 4 credits

## Required Physics:

PHYS 205 - University Physics I 4 credits
PHYS 205L - University Physics I Laboratory 1 credit
PHYS 206 - University Physics II 4 credits
PHYS 206L - University Physics II Laboratory 1 credit

## Approved Advanced Elective Courses

## Chemistry:

Any 300- or 400-level course, with the exception of 330 and 399. A maximum of 4 credits of 499 may be counted.

## Biology:

BIO 330 - General Physiology 3 credits
BIO 330L - General Physiology Laboratory 1 credit
BIO 374 - Cellular and Microbial Biology 3 credits
BIO 374L - Cellular and Microbial Biology Laboratory 1 credit
BIO 380 - Genetics 3 credits
BIO 380L - Genetics Laboratory 1 credit
BIO 408 - General Immunology 3 credits
BIO 408L - General Immunology Laboratory 1 credit
BIO 476 - Microbial Physiology 3 credits
BIO 482 - Recombinant DNA 2 credits

## Mathematics:

MATH 333 - Differential Equations 3 credits
MATH 341 - Probability and Statistics 3 credits
MATH 413 - Linear Algebra I 3 credits
Physics:
Any advanced physics course that carries a prerequisite of 206 or higher.

## All students must choose one of the following concentrations along with the core:

## American Chemical Society-Certified Concentration (19 semester credits):

This program is designed for the student who wishes to pursue an advanced degree or a career as a professional chemist.

## Required Chemistry:

CHEM 340 - Techniques in Inorganic Chemistry 2 credits
CHEM 355 - Organic Chemistry Laboratory Techniques 2 credits
CHEM 421 - Instrumental Methods of Analysis 4 credits
CHEM 421L - Instrumental Methods of Analysis Lab 0 credits
CHEM 462 - Physical Chemistry II 4 credits
CHEM 462L - Experimental Physical Chemistry II 1 credit
Electives:
6 credits of advanced coursework from approved electives listed above. At least 3 credits must be in chemistry.

## American Chemical Society-Certified Biochemistry Concentration (25 semester credits):

This program is designed for the student who wishes to pursue an advanced degree or a career as a professional chemist in the area of biochemistry and the biological sciences.

Required Chemistry:<br>CHEM 355 - Organic Chemistry Laboratory Techniques 2 credits<br>CHEM 431L - Biochemistry Laboratory 1 credit<br>CHEM 432 - Biochemistry II 3 credits

## Required Biology:

BIO 101 - Principles of Biology I 3 credits
BIO 101L - Principles of Biology I Laboratory 1 credit
BIO 102 - Principles of Biology II 3 credits
BIO 102L - Principles of Biology II Laboratory 1 credit

## Elective Chemistry:

3 credits of advanced coursework in chemistry from approved chemistry electives listed above.

Elective Biology (8 semester credits):
Two of the following three lecture courses with accompanying lab:
BIO 330 - General Physiology 3 credits

BIO 330L - General Physiology Laboratory 1 credit
BIO 374 - Cellular and Microbial Biology 3 credits
BIO 374L - Cellular and Microbial Biology Laboratory 1 credit
BIO 380 - Genetics 3 credits
BIO 380L - Genetics Laboratory 1 credit

## Pre-Professional Concentration (19 semester credits):

This program is designed for the student who wishes to pursue a career in medicine, dentistry, veterinary science, or other related fields.

## Required Chemistry:

CHEM 431L - Biochemistry Laboratory 1 credit
CHEM 432 - Biochemistry II 3 credits

## Required Biology:

BIO 101 - Principles of Biology I 3 credits
BIO 101L - Principles of Biology I Laboratory 1 credit
BIO 102 - Principles of Biology II 3 credits
BIO 102L - Principles of Biology II Laboratory 1 credit
Electives:
7 credits of advanced coursework from approved electives listed above.

## Business Concentration (19 semester credits):

This program is designed for the student who wishes to pursue a career in marketing, sales, or administration in the chemical or pharmaceutical industry.

## Required Chemistry:

CHEM 431L - Biochemistry Laboratory 1 credit

## Required Business:

BUS 201 - Principles of Accounting I 3 credits
FIN 200 - Fundamentals of Finance 3 credits
MGT 301 - Survey of Management 3 credits
MKTG 301 - Introduction to Marketing 3 credits

## Required Economics:

ECON 200 - Principles of Macroeconomics 3 credits
ECON 201 - Principles of Microeconomics 3 credits
Preferred effective term: Fall 2009

## COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

Chemistry Minor (23-24 credits)
CIP Code: 400501 Major Code: 1421

## Brief Summary:

We are proposing a small change to the chemistry minor: CHEM 421 will be allowed as an elective, and CHEM 461 will replace CHEM 465 as an elective.

## Student Learning:

These changes to the chemistry program are in response to the new American Chemical Society (ACS) guidelines for bachelor's degree chemistry programs. Two of our concentrations follow these guidelines and will be ACS-certified. Students who complete the chemistry degree under these certified concentrations will be well prepared to enter graduate school and compete with students from other institutions which have ACS-certified programs.

Students who complete any of the four concentrations under the proposed curriculum should be well prepared to pursue employment as chemists, having had courses in all five major areas of chemistry, rigorous calculus-based courses, and hundreds of laboratory hours. In recent years our students have had a high rate of success in obtaining jobs after graduation, so these improvements to the program should only increase that success rate. In surveying the chemistry curricula of peer institutions, we found that the majority of these programs require at least two semesters of calculus, as well as calculus-based physical chemistry. Under the proposed curriculum, our program will be similar to that of our peer institutions, so we expect that our graduates will in the future be even more competitive in the job market relative to graduates from other institutions.

## Proposed Catalog Copy:

Chemistry Minor (23-24 credits)
CIP Code: 400501 Major Code:

## Required Chemistry:

CHEM 105 - General Chemistry I credits: 3
CHEM 105L - General Chemistry I Laboratory credits: 1
CHEM 106-General Chemistry II credits: 3
CHEM 106L - General Chemistry II Laboratory credits: 1
CHEM 321 - Analytical Chemistry credits: 4
CHEM 351 - Organic Chemistry I credits: 3
CHEM 351L - Organic Chemistry Laboratory I credits: 1
CHEM 352 - Organic Chemistry II credits: 3
CHEM 352L - Organic Chemistry Laboratory II credits: 1

## Elective (select one from the following):

CHEM 371 - Environmental Chemistry credits: 3
CHEM 421 - Instrumental Methods of Analysis credits 4
CHEM 431 - Biochemistry I credits: 3
CHEM 461 - Physical Chemistry credits: 4
Preferred effective term: Fall 2009

# COLLEGE OF TECHNOLOGY: Electronics, Computer, and Mechanical Engineering Technology 

B.S. Mechanical Engineering Technology (81 credits) CIP Code: 150899 Major Code: D732

## Brief Summary:

This revision is to make the program meet the ABET (TAC) accreditation criteria, Industry Advisory recommendations, and to reflect the change in a required course MET 215. The major requires 83 credit hours instead of 84 . The proposed changes are summarized as follows:

1. MET 409 Senior Project is moved from the technical elective to the required category. ABET requires that the curriculum must include a capstone or some kind of integrating experience.
2. MET 329 Fluid Power Technology is moved from the technical elective to the required category to meet the Industry Advisory recommendation dated 30 April, 2008.
3. Current program waives the requirement of PHYS 106/106L if the students take elective MET 304 Engineering Analysis (Dynamics). In this proposal, MET 304 (3 credits) is moved to the required category and PHYS 106/106L (4 credits) is dropped. Note that MET 304 is more important to satisfy the accreditation and is also distance deliverable. The major still requires PHYS 105/105L (4 credits). An F-4 was sent to the Chememistry and Physics Department and they have expressed no reservation.
4. Current program requires MATH 115 and MET 215 Graphic Analysis. MET 215 used to be a higher level mathematics course requiring MATH 115 as pre-requisite. But recently MET 215 has been modified which does not require MATH 115 as pre-requisite, and is almost equivalent to MATH 115 except that it is more applied. Therefore, the students can take MATH 115 or MET 215 instead of taking both.
5. The major requires MATH 123 and MATH 301 in addition to MATH 115 or MET 215. a. Pre-requisite for MATH 123 is MATH 115 or equivalent. Our students will take MATH 115 or MET 215, they will meet the MATH 123 Pre-requisite.
b. Pre-requisite for MATH 301 is MATH 115, 201 or equivalent. Prior to taking MATH 301 our students will take MATH 115 or MET 215 and MATH 123. This will then satisfy the MATH 301 pre-requisite equivalency.
An F-4 was sent to the Math \& CS Dept and they have expressed no reservation.
6. MATH 123 will meet the Basic Studies: Quantitative Literacy requirement.
7. Current program requires 12 credits of electives: 6 credits of technical and 6 credits of management. Since some of the technical electives have been added to the required category and the curriculum already requires MET 404 and MET 405 which are engineering and design management related, the proposed program will require only 9 credits of electives in such a way that a minimum of 3 credits should be taken from each category. An F-4 was sent to the TM Dept and they have expressed no reservation.
8. MET 299 CAD Fundamentals (3 credits) is added in the technical elective list without affecting the required credits.

## Student Learning:

This revision will help toward the accreditation.

## B.S. Mechanical Engineering Technology (83 credits**) CIP Code: 150899 Major Code: <br> $\qquad$

Required Courses:
MET: 103-3 credits; 130-2 credits; 203-3 credits; 302-3 credits; 304-3 credits; 306-3
credits; 329-3 credits; 403-3 credits; 404-3 credits; 405-3 credits; 406-3 credits; 408-3
credits; 409-3 credits; 413-3 credits; 430-1 credit
MFG: 370-3 credits; *371-3 credits
ECT: 160-3 credits; 280-3 credits
Mathematics and Computer Science: MATH: 123-3 credits; 301-3 hrs; CS: 151-3 credits MATH 115-3 credits or MET 215-3 credits
CHEM: 100-3 credits and 100L-1hr; PHYS: 105-3 credits and 105L-1 credit
Electives: 9 credits from the following:
Technical Electives: 3-6 credits from MET 299-3 hrs; 337-3 credits; 351-3 credits; 407-3 credits; other course(s) approved by the MET advisor.
Management Electives: 3-6 credits from TMGT: 471-3 credits; 473-3 credits; 478-3 credits; MGT 301-3 credits
*or equivalent approved by the MET advisor.
**Include 8 credits of Liberal Studies, (CHEM 100 \& 100L and PHYS 105 \& 105L), 3 credits of Basic Studies: Quantitative Literacy (MATH 123), and 3 credits of Basic Studies: Information Technology Literacy (CS 151).
Preferred effective term: Fall 2009

## GRADUATE PROPOSALS

## NEW COURSES

## COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

## CHEM 552-Medicinal Chemistry

3 credits.
A survey of topics at the interface of chemistry and medicine, including drug discovery and lead optimization, basic pharmacodynamics, enzymes/receptors, bioassays, quantitative structureactivity relationships (QSAR), and drug absorption, metabolism, distribution and excretion (ADME). Prerequisite: CHEM 352. CHEM 431 recommended.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Preferred effective term: Fall 2009

## COURSE REVISIONS

COLLEGE OF EDUCATION: Communication Disorders and Counseling, School, and

## Educational Psychology

## COUN 534 - Foundation of Counseling Psychology

3 credits
An orientation to the field focusing on issues relevant to professional identity development. A survey of the historical and intellectual context of counseling, contemporary professional issues, and critical thinking as applied to clinical practice.

Change title to:
COUN 534 - Foundation of Mental Health Counseling
3 credits
An orientation to the field focusing on issues relevant to professional identity development. A survey of the historical and intellectual context of counseling, contemporary professional issues, and critical thinking as applied to clinical practice.
Preferred effective term: Fall 2009

## PROGRAM SUSPENSION

## COLLEGE OF EDUCATION: Communication Disorders and Counseling, School, and Educational Psychology

## Ph.D. Guidance and Psychological Services: Specialization in Counseling Psychology or Counselor Education <br> CIP Code: 131101 Major Code: 8668

## Brief Summary:

The Counselor Education specialization of the Ph.D. in Guidance and Psychological Services is being suspended. The faculty voted to suspend admissions to the program as of 2008. The specialization will be revised and reconsidered for reopening within three years.

## Proposed Catalog Copy:

## Ph.D. Guidance and Psychological Services: Specialization in Counseling Psychology CIP Code: 131101 Major Code: <br> $\qquad$

## Admission to Programs

The graduate program leading to the doctor of philosophy degree in guidance and psychological services is designed to prepare selected persons for positions of leadership in research, teaching, counseling psychology, pupil personnel services, and school psychology. Admission and retention are based upon appropriateness of educational and career goals, available positions in the program, interpersonal skills and sensitivity, communication ability, and academic potential and performance. Meeting minimum standards alone does not guarantee either admission or retention. A minimum of 72 hours of graduate work beyond the bachelor's degree is required, in addition to the successful completion of a doctoral dissertation as prescribed in the regulations of the School of Graduate Studies.
A student must satisfy all general regulations of the College of Education and the School of

Graduate Studies as stated elsewhere in this Catalog. An additional admission criterion for the doctorate in guidance and psychological services requires the applicant to have a grade point average of 3.5 or above on all graduate work attempted.
It must not be assumed that meeting minimal standards guarantees admission to the program. The admissions committee must have the following before an admission decision will be considered:

1. Completed application forms required by the School of Graduate Studies and the specific departmental program.
2. Letters of recommendation from at least three persons who know the prospective student in an academic or professional capacity.
3. One official transcript from each school at which any undergraduate or graduate work has been done.
4. Scores on Graduate Record Examinations General Tests.
5. For the Counseling Psychology Specialization all application materials must be received prior to January 1 for fall admission.
The admissions committee may require the applicant to appear for a personal interview and to present evidence of his or her ability to write acceptable prose under controlled conditions.

## Research Tool Proficiency

All doctoral students are expected to demonstrate proficiency in appropriate research tools. Consult with the program coordinator or department chairperson for additional information on this program's research tool requirement.

## Admission to Candidacy

Students may apply for admission to candidacy after any provisions or conditions that may have been attached to admission to the program have been removed. Additionally, all the standards of the School of Graduate Studies must be met. Refer to that section of this Catalog for details.

## Retention

A student whose grade point average drops below 3.5 will be placed on probation, suspended from graduate study, or dismissed from the School of Graduate Studies. The dean of the School of Graduate Studies, in accordance with the regulations of the department and the School of Graduate Studies, will make decisions in such matters. A student who is suspended from graduate study or dismissed from the School of Graduate Studies may request a review of the case by the Graduate Student Appeals Committee of the Graduate Council.

## Dissertation

An acceptable dissertation on a topic or problem relating to the student's area of specialization is required for completion of degree requirements.

## Time Limitation

Generally, the doctor of philosophy must be completed within a total of nine years after admission to the program and within six years after admission to candidacy for the degree. The program can be described briefly as follows:

## A. Foundations (a minimum of 15 hours):

In all doctoral programs the student must demonstrate competency in foundational areas of knowledge and skills necessary to support research, scholarship, and practice in that area. The specific foundational course work and competencies will depend upon the doctoral specialization with each program having its own prescribed sequence of foundational study.

## B. Behavioral Sciences Core (a minimum of $\mathbf{2 0}$ hours):

The student must complete a program enabling him or her to develop deeper theoretical and philosophical understandings of human behavior. To provide for this development the student must complete a core of study (at least 20 semester hours) in the behavioral sciences selected from offerings in psychology, sociology, and anthropology.

## C. Counseling Psychology Specialization (APA Approved; 30-48 hours minimum):

Prepares psychologists to assume positions in college teaching and research, counseling psychology positions in community mental health centers, and within state and federal governmental agencies and in private practice. The specialty places a high priority on the scientist-professional model and expects students to become contributing professional psychologists in both areas. This specialization requires a year-long predoctoral internship.

## Notes:

The student must show possession and effective use of the technical knowledge and skills needed by every professional worker in the area of specialization. In addition, the independence of thought, the inquiring attitudes, and the skills necessary for productive research work must be developed. Special competencies will be developed through participation in courses, seminars, research activities, clinical internships, and other planned activities. Each student must successfully complete and adequately defend a doctoral dissertation.
The program for each student will be planned jointly by the student, the advisor, and the doctoral committee and will take cognizance of the candidate's competencies, needs, interests, and goals as well as any prior or existing educational or experiential deficiencies. This program will be subject to revision as the student's strengths and weaknesses are assessed as he or she continues through the program.

## Note:

Courses in the 500 series are open to undergraduates as *400 series. Graduate students are required to do additional work of a research nature. A course taken at the 400 level may not be repeated at the 500 level.

# UNDERGRADUATE APPROVALS 

## COURSE REVISIONS

## COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

## CHEM 421 - Instrumental Methods of Analysis

4 credits
Principles and applications of instrumental analytical chemistry, including signal and noise analysis, design and application of atomic and molecular spectroscopic and mass spectrometric instrumentation, and chromatographic methods of separation.
Prerequisites: CHEM 321 and successful completion of or concurrent enrollment in CHEM 462 or CHEM 465.
Note: Three class hours and three laboratory hours per week. Open to graduate students.
Graduate students are required to do additional work of a research nature.
Change prerequisites to:
CHEM 421 - Instrumental Methods of Analysis
4 credits
Principles and applications of instrumental analytical chemistry, including signal and noise analysis, design and application of atomic and molecular spectroscopic and mass spectrometric instrumentation, and chromatographic methods of separation.
Prerequisites: CHEM 321.
Note: Three class hours and three laboratory hours per week. Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Preferred effective term: Fall 2009

## CHEM 439 (A-G) - Topics in Biochemistry

1-3 credits
The study of a selected topic in biochemistry. Examples include: enzyme kinetics, proteins, metabolism/biosynthetic routes, and techniques in biochemistry.
Prerequisites: CHEM 431.
Note: May be repeated when topic is different. Open to graduate students. Graduate students are required to do additional work of a research nature. Unless otherwise stated, all chemistry courses require laboratory work.

Change prerequisites to:

## CHEM 439 (A-G) - Topics in Biochemistry

1-3 credits
The study of a selected topic in biochemistry. Examples include: enzyme kinetics, proteins, metabolism/biosynthetic routes, and techniques in biochemistry.
Prerequisites: CHEM 352.
Repeatable: May be repeated when topic is different.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature. Unless otherwise stated, all chemistry courses require laboratory work.

Preferred effective term: Fall 2009

