Academic Notes

SPECIAL NOTICES

ACADEMIC APPAREL RENTAL FORM

Faculty members needing to rent academic apparel for Fall 2006 Commencement need to fill out the Academic Apparel Rental Form on the last page of this document, and send it **by November 1, 2006**, to:

TERRI LAVINDER
ISU BOOKSTORE

A late fee will be applied after that date to cover additional shipping charges.

ACADEMIC NOTES PUBLICATION SCHEDULE FOR FALL 2006

Below is the circulation schedule for the electronic copy of *Academic Notes* through December 18, 2006. **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,** *along with an E-Mail or a diskette with the same information in Microsoft Word format. Failure to submit a diskette containing this information will delay publication.* *Academic Notes* is available using Acrobat Reader at http://www.indstate.edu/site/acad-aff/2315.html –.

Academic Notes Formatting

Formatting in *Academic Notes* has been changed to conform to formatting of the undergraduate and graduate catalogs. This will streamline the process and reduce the possibility of errors.

ACADEMIC NOTES PUBLICATION SCHEDULE FOR FALL 2006

Deadline for Items	Issue Date
September 13	September 18
September 20	September 25
September 27	October 2

October 4	October 9
October 11	October 16
October 18	October 23
October 25	October 30
November 1	November 6
November 8	November 13
November 15	November 20
November 21[1]	November 27
November 29	December 4
December 6	December 11
December 13	December 18

[1] Due to holidays, the dates for submission and publication have been moved up or back a day.

THESES, DISSERTATIONS, AND RESEARCH PROJECTS

COLLEGE OF ARTS AND SCIENCES: Geography, Geology, and Anthropology

Pin Jiang will defend his thesis entitled *Biomass Estimation and Classification of Secondary Succession Using Radar and Optical Remote Sensing Data Based on Textural and Spectral Analysis in Amazonia,* on Thursday, September 21, 2006 at 2:00 p.m. in the Science Building, room 110. Members of his committee are: Dr. Qhiao Weng, chairperson, Dr. Paul Mausel, co-chairperson, and Dr. Susan Berta, Dr. Grian Ceh, and Dr. Cheng Zhao.

COLLEGE OF ARTS AND SCIENCES: Psychology

Piotr Burchard will defend his thesis entitled *Moderating Role of Self-monitoring in the Presentations of Self Through Display of Possessions,* on Tuesday, September 19, 2006, at 3:30 p.m., in Root Hall, room B-230. Members of his committee are: Dr. Virgil Sheets, chairperson, Dr. Veanne Anderson, and Dr. Bradley Brubaker.

FACULTY GOVERNMENT

INDIANA STATE UNIVERSITY
FACULTY SENATE
EXECUTIVE COMMITTEE

The Executive Committee of the University Faculty Senate will meet at 3:15 p.m. on Tuesday, September 12, 2006, in Hulman Memorial Student Union 227.

Agenda

    I. Administrative Report
    II. Chair Report

   III. Fifteen Minute Open Discussion
   IV. Approval of the Minutes
    V. Information Item: Pay Stub Distribution
   VI. Faculty Affairs Committee Recommendations:
        a. Faculty Enrollment in Classes
        b. Handbook Language for Grievance and Dismissal Procedures
        for Special Purpose and Part-time Temporary Faculty
  VII. Old Business
        a.   Standing Committee Charges
 VIII. New Business

ADMINISTRATIVE AFFAIRS COMMITTEE

    The Administrative Affairs Committee will meet at 2:00p.m., Wednesday, September 13, 2006, in Meyers Tech Center, room TC 101E.

Agenda

Election of officers

ADMINISTRATIVE AFFAIRS COMMITTEE

    The Administrative Affairs Committee will meet at 3:00 p.m., Friday, September 15, 2006 in Meyers Tech Center, room TC 101E.

Agenda

1. Minutes of September 13, 2006
2. New business

CURRICULUM

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GRADUATE PROPOSALS

<u>NEW COURSES</u>

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

CS 620 Advanced Theory of Computation—3 hours. Turing Machines, The Church-Turing Thesis, Decidability, The Halting Problem, Reducibility, Recursive Function Theory, The Recursion Theorem, Time and Space Complexity, Classes P and NP, NP-completeness. Prerequisite: Computer Science 420.

CS 621 Advanced Discrete Structures--3 hours. Symmetry and counting, automorphism groups of combinatorial structures, finite fields and applications, error correcting codes, and generating functions. Prerequisites: Mathematics 413, 416.

CS 658 Advanced Algorithms—3 hours. Recurrences, Probabilistic Analysis, Randomized Algorithms, Red-Black trees, Amortized Analysis, Fibonacci Heap, Disjoint Set Union, The All Pairs Shortest Path Problem, Maximum Flow.

CS 695 Computer Science Research – 3 hours. Research studies in computer science.

COLLEGE OF EDUCATION: Curriculum, Instruction, and Media Technology

CIMT 500W Workshop for Educators—1-6 hours. Credit for workshop participation that focuses on practical application of best practice and educator renewal. Course may be repeated for credit.

COLLEGE OF EDUCATION: Educational and School Psychology

EPSY 500W Workshop for Educators—1-6 hours. Credit for workshop participation that focuses on practical application of best practice and educator renewal. Course may be repeated for credit.

SPSY 500W Workshop for Educators—1-6 hours. Credit for workshop participation that focuses on practical application of best practice and educator renewal. Course may be repeated for credit.

COLLEGE OF EDUCATION: Educational Leadership, Administration, and Foundations

ELAF 500W Workshop for Educators—1-6 hours. Credit for workshop participation that focuses on practical application of best practice and educator renewal. Course may be repeated for credit.

SAHE 500W Workshop for Educators—1-6 hours. Credit for workshop participation that focuses on

practical application of best practice and educator renewal. Course may be repeated for credit.

<u>NEW PROGRAM</u>

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

Master of Science Computer Science (33 semester hours minimum)

Brief Summary:

Add new degree program, M.S. in Computer Science. Assign CIP code 110101

Rationale:

There are currently five Indiana public institutions offering Masters programs in computer science and related fields. There are no institutions in this region (including Eastern Illinois) or southern Indiana that offers master's degree programs in computer science. The Department of Mathematics and Computer Science proposes that there is a need for the specific program it is proposing in this region.

External demand:
Information obtained from the Learn More Resource Center for Indiana students and job seekers verifies that the need in Indiana for employees in computer science-related fields is expected to continue to grow "much faster than average" through 2010, in most cases more than 50%. The US Bureau of Labor Statistics also expects that job growth to be among the fastest growing until 2012 in the areas for which this degree prepares workers.

Indiana-Purdue Fort Wayne offers an M.S. degree in Applied Computer Science only.   Indiana University and Purdue University offer programs that are Ph.D.-oriented at the graduate level. The masters program in computer science at Ball State has awarded an average of 28 degrees over the last five years with an average enrollment of 48 students per year. Information from IUPUI, whose program is housed in Purdue's College of Science, was unavailable. The proposed program at ISU will allow the state to meet the additional demand expected for the future with a program that meets the needs of students for masters-level competency.

Internal demand:
Currently, the Department of Mathematics and Computer Science has 15 students enrolled in the Master's degree program in Mathematics that includes a concentration in Computer Science. A survey of interest among students currently enrolled in undergraduate computer science and information technology programs shows that 49% of students interviewed would be interested in or possibly enroll in the proposed program.

The Department expects to attract students who have completed the baccalaureate degree with a major in computer science, mathematics, management information systems, information technology, or related degrees.   In order to attract currently employed individuals who wish to increase their skills and

advancement potential in their field, the Department plans to offer at least two courses per semester during evening hours. The Department will develop am aggressive recruitment plan to attract Hoosier students to the program. It further expects enrollment from students from Illinois, from other states and international students.

The proposed program distinguishes itself in the core of courses in theoretical computer science. Further, elective course work focuses on systems and applications more broadly, rather than the emphasis on software engineering and design found at other Indiana institutions. New courses proposed for the program include:

CS 658 Advanced Algorithms will include topics in advanced Algorithm Analysis, strategies for Algorithm design, advanced data structures, and graph and approximation algorithms. CS 620 Advanced Theory of Computation will include Turing machines, undecidability, elementary recursive function theory, time and space complexity, and NP completeness. CS 621Advanced Discrete Structures analyze topics in graph theory, coding theory, computer security and cryptographic techniques.

Finally, the program requires a research project, which will allow students to work on research projects in algorithms, databases, optimization, combinatorics (graph theory, Latin squares, designs), cutting edge e-commerce applications, and other topics in computer science. Proposed new courses can also be taken as electives by students in the Mathematics masters degree program. While the program is designed primarily for students who seek advanced degree at the Masters level, the curriculum will also prepare students wishing to continue to a Ph.D. program.

Proposed Catalog Copy:

Master of Science Computer Science (33 semester hours minimum)

Research : CS 695 – 3 hours
Required Courses: - 12 hours as follows: CS 620 – 3 hours, CS 658 – 3 hours, CS 621 – 3 hours, and Math 513 – 3 hours.
Electives: 18 hours of graduate level course work approved by the student's advisor.
Culminating experience: research project

At least one-half of the credit hours must be in courses numbered 600 or above.

UNDERGRADUATE APPROVALS

NEW CATALOG LANGUAGE FOR SMS: F, E REQUIREMENTS
(*Approved by CAAC on March 28, 2006*)

Scientific and Mathematical Studies: One Foundational Laboratory Science course (SMS: F,E) and one Scientific and Mathematical Studies Elective course (SMS: E). Course work in this

area is designed to develop students' scientific and mathematical literacy through an understanding of basic principles underlying natural phenomena and the products of science and mathematics.

All students must take at least one Foundational Laboratory Science course unless they complete a major whose requirements or approved cognates grant them credit for completing a laboratory science course. If credit is given separately for a laboratory the student must complete both the laboratory science course and the laboratory in order to satisfy the requirement. For example, a student must take both Chemistry 100 and Chemistry 100L to complete the Foundational Laboratory Science requirement. Students completing two of the approved 100 or 200 level laboratory science courses as cognates or required courses within a major or minor will have satisfied both the Foundational Laboratory Science and the Scientific and Mathematical Studies Elective course requirements. Students enrolled in a science, allied health, nursing, pre-professional, or other major or minor that requires two or more laboratory science courses should consult with their academic advisor.

SMS: F,E—Courses listed below satisfy the Foundational Laboratory Science or Elective requirement.

CHEM 100/100L	Reactions and Reason
GEOG 111/111L	The Physical Environment
GEOL 160/160L	Introduction to Earth and Sky
BIOL 112/112L	Human Aspects of Biology and Laboratory
PHYS 101/101L	Introduction to the Physical Sciences

SMS: E—Courses listed below satisfy the Scientific and Mathematical Studies Elective requirement only.

CS 151	Introduction to Computer Science
FCS 201	Fundamentals of Nutrition
GEOG 115	Earth from Space: Contemporary Remote Sensing
GEOG 316+	Weather and Climate
GEOL 270+	Historical Geology
GEOL 360	General Astronomy (Cross-listed as Physics 360)
GEOL 361+	Oceanography
BIOL 113	Survey of the Plant Kingdom
BIOL 410	History of Biology
ECOL 415	Natural History: A Study of the Diversity of Life
ECOL 455	Humans and the World Environment
MATH 131	Calculus I
PHIL 105	Introduction to Logic
PHIL 409	Philosophy of Science
PHYS 105/105L	General Physics I and General Physics I Laboratory
PHYS 106/106L	General Physics II and General Physics II Laboratory
PHYS 360	General Astronomy (Cross-listed as Geography 360)
PHYS 423	Fundamentals of Light and its Application to Photography (Cross-listed as Science Education 423)
PHYS 440	Musical Acoustics

SCED 423   Fundamentals of Light and its Application to Photography (Cross-listed as Physics 423)

Approved Laboratory Science Courses for students in science, allied health, nursing and pre-professional programs ONLY. Students not in these programs should select from the SMS:F,E and SMS:E courses listed above. The courses listed below are designed strictly for majors and minors in science, allied health, nursing, and pre-professional programs.

ATTR 210 & 210L
BIOL 101 & 101L
BIOL 102 & 102L
CHEM 103 & 103L
CHEM 104 & 104L
CHEM 105 & 105L
CHEM 106 & 106L
GEOG 111 & 111L
GEOL 160 & 160L
LIFS 231 & 231L
LIFS 241 & 241L
LIFS 274 & 274L
PE 220 & 220L
PHYS 105 & 105L
PHYS 106 &106L
PHYS 205 & 205L
PHYS 206 & 206L

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Institution: _____

City / State_____

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Doctor Regalia:	Price	Tax	Total	
Cap, gown, and hood	$64.98	$3.90	$68.88	_____
Cap and gown only	$33.99	$2.04	$36.02	_____
Hood only	$30.99	$1.86	$32.85	_____

Master Regalia:				
Cap, gown and hood	$56.98	$3.42	$60.40	_____
Cap and gown only	$28.99	$1.74	$30.73	_____
Hood only	$27.99	$1.26	$29.04	_____

Bachelor Regalia:				
Cap, gown and hood	$52.98	$3.18	$56.16	_____
Cap and gown only	$26.99	$1.62	$28.61	_____
Hood only	$25.99	$1.56	$27.55	_____
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Packets of information to order custom regalia are available at the ISU Bookstore. Approximately 6 to 8 weeks are necessary lead-time to create custom regalia.

The ISU Bookstore