



Academic Notes

April 19, 2010

AN 2009-2010

**** 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 8, 2010**. 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 12, 2010**. 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 2010

Below is the circulation schedule for the electronic copy of *Academic Notes* through May 10, 2010. 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://www.indstate.edu/academicaffairs/academic_notes.htm

ACADEMIC NOTES PUBLICATION SCHEDULE FOR SPRING 2010

<u>Deadline for Items</u>	<u>Issue Date</u>
April 21	April 26
April 28	May 3
May 5	May 10

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.

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

CURRICULUM

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UNDERGRADUATE PROPOSALS

NEW COURSES

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

CS 201 - Computer Science I

3 credits

This course begins with a history of programming languages, then focuses on programming in a particular language. The following topics are covered in some detail: variables, expressions and operators, control structures, simple data types, arrays, classes and objects. Algorithm design and security issues are also discussed.

Prerequisite: CS 151.

A-F Grading

Preferred effective term: Fall 2010

CS 202 - Computer Science II

3 credits

This course is a continuation of CS 201. It involves a deeper study of programming languages, but emphasizes programming in a particular language. Topics include algorithm design and analysis, data structures, recursion, threads, network programming, graphics, security and ethics.

Prerequisite: CS 201.

A-F Grading

Preferred effective term: Fall 2010

CS 303 - Discrete Structures

3 credits

This course is an introduction to discrete mathematics for computer science. The course covers the basic topics from set theory (including functions and relations), logic, number theory, counting, graph theory, and discrete probability. It involves a detailed study of proof techniques.

Prerequisite: CS 201.

A-F Grading

Preferred effective term: Fall 2010

COURSE REVISIONS

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

MATH 333 - Differential Equations

3 credits

First order equations, exact equations, higher order equations, power series methods, variation of parameters, systems of equations, Laplace transform, existence, and uniqueness of solutions.

Prerequisites: MATH 131.

Change prerequisites to:

MATH 333 - Differential Equations

3 credits

First order equations, exact equations, higher order equations, power series methods, variation of parameters, systems of equations, Laplace transform, existence, and uniqueness of solutions.

Prerequisites: MATH 231.

Preferred effective term: Fall 2010

COURSE REVISIONS

FOUNDATIONAL STUDIES

COLLEGE OF ARTS AND SCIENCES: African and African American Studies

AFRI 312 - Socio-Political Development and Change in the African and African American World

3 credits

The study and analysis of socio-cultural and political forces underlying Black socio-cultural,

politico-economical, and religious development during the twentieth century. Topics include: Black Civil Rights organizations, Black socio-economic classes, Black education, Black mores, Black labor, Black capitalism, Black national and international leadership, and Pan-Africanism.
General Education Credit: [GE2000: Multicultural Studies-U.S. Diversity]

Change title, description, and General Education Credit to Foundational Studies Credit:

AFRI 312 – The African Diaspora

3 credits

This course traces the spread of African culture and ideas through the African Diaspora as a result of slavery and colonialism, and the ways that African traditions were reinterpreted and combined with European culture. Topics include: ideas of the Diaspora, religious beliefs, food traditions, music, and kinship traditions in the United States, Caribbean, and South America.

Foundational Studies Credit: [FS 2010: Integrative Upper-Division Electives]

Preferred effective term: Fall 2010

COLLEGE OF ARTS AND SCIENCES: Environmental and Earth Systems

ENVI 423 - Geography of the Middle East

3 credits

Physical and cultural environment of the Middle East, with emphasis on its strategic location, significance in world history and culture, energy resources, and evolving geopolitics.

General Education Credit: [GE2000: Multicultural Studies-International Cultures]

Change description and General Education Credit to Foundational Studies Credit:

ENVI 423 - Geography of the Middle East

3 credits

Environmental and cultural patterns of the Middle East, with emphasis on strategic location, significance in world history, Islamic culture, water and energy resources, and evolving geopolitics and conflicts.

Foundational Studies Credit: [FS 2010: Integrative Upper-Division Electives]

Preferred effective term: Fall 2010

COLLEGE OF ARTS AND SCIENCES: History

HIST 320 - Comparative Slavery

3 credits

An institution that existed in much of the world until very recently, slavery has had a profound impact on the transfer of ideas and culture around the world. By examining the history of slavery in Europe, Asia, America, and Africa, this course will help students understand the remarkable diversity of the world's culture and how cultural ideas are transferred and transformed through such events as slavery.

General Education Credit:[GE2000: Multicultural Studies- International Cultures]

Change title, description, and General Education Credit to Foundational Studies Credit:

HIST 320 – The African Diaspora

3 credits

An institution that existed in much of the world until very recently, slavery has had a profound impact on the transfer of ideas and culture around the world. By examining the history of slavery in Europe, Asia, America, and Africa, this course helps students understand the remarkable diversity of the world's culture and how cultural ideas are transferred and transformed through such events as slavery.

Foundational Studies Credit: [FS 2010: Integrative Upper-Division Electives]
Preferred effective term: Fall 2010

HIST 336 - The 1960s: Counterculture and Protest

3 credits

Investigation of the counterculture and social and political protest movements in the United States from 1955-1975.

General Education Credit: [GE2000: Historical Studies]

Change General Education Credit to Foundational Studies Credit:

HIST 336 - The 1960s: Counterculture and Protest

3 credits

Investigation of the counterculture and social and political protest movements in the United States from 1955-1975.

Foundational Studies Credit: [FS 2010: Integrative Upper-Division Electives]

Preferred effective term: Fall 2010

COURSE BANKING

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

MATH 416 – Modern Abstract Algebra I

Preferred effective term: Fall 2010

PROGRAM REVISIONS

COLLEGE OF ARTS AND SCIENCES: Biology

Clinical Laboratory Science Major (3-plus-1 Program) (64 credits) including extra-departmental requirements

CIP Code: 511005 Major Code: 2636

Brief Summary:

The BS degree program in Biology with Specialization in Clinical Laboratory Science is termed a “3 plus 1” program because the student is in residence at ISU for the first three years and, if accepted into the 4th year internship, they spend the fourth year in a 12 month hospital training program. ISU is affiliated with five accredited hospital training programs in Indiana.

Changes to the Clinical Laboratory Science specialization are necessary for several reasons. First, changes in the Department of Biology have made it necessary to delete several courses because faculty that taught these specialty courses are no longer at ISU. The courses are not required to apply to the 4th year hospital program and so can be eliminated. Second: the name change is necessary because the field of Clinical Laboratory Science has officially changed its name to Medical Laboratory Science (effective Oct 23, 2009) and the students will ultimately be registered through the American Society of Clinical Pathologists as Medical Laboratory Scientists. Third: an immunology course has been added to the required courses by the hospital programs and therefore needs to be added to the courses required by our program.

Student Learning:

Student outcomes for the Clinical Laboratory Science program have not been assessed recently. However, unofficially, the Department of Biology has had 1-2 students enter the 4th year hospital training program for the past 5 years. The rate of completion of the program is 100% and the employment of these graduates is 100% in their field. In fact, most of these students have been offered jobs and have accepted positions before they graduate. Efforts are underway to increase enrollment in the program and 12 are enrolled currently.

Proposed Catalog Copy:

Biology with Specialization in Medical Laboratory Science Major ((3-plus-1 Program)

(46-47 credits plus 32-34 credits from hospital internship)

CIP Code: 511005 Major Code: _____

Required Biology Courses (23 credits):

- BIO 101 - Principles of Biology I 3 credits
- BIO 101L - Principles of Biology I Laboratory 1 credits
- BIO 102 - Principles of Biology II 3 credits
- BIO 102L - Principles of Biology II Laboratory 1 credits
- BIO 241 - Human Physiology 2 credits
- BIO 241L - Human Physiology Laboratory 1 credits
- BIO 374 - Cellular and Microbial Biology 3 credits
- BIO 374L - Clinical Microbiology Laboratory 1 credits
- BIO 380 - Genetics 3 credits
- BIO 380L - Genetics Laboratory 1 credits
- BIO 408 – Immunology 3 credits
- BIO 408L – Immunology Laboratory 1 credits

Prerequisites Include the Following (20 credits):

- CHEM 105 - General Chemistry I 3 credits
- CHEM 105L - General Chemistry I Laboratory 1 credits
- CHEM 106 - General Chemistry II 3 credits
- CHEM 106L - General Chemistry II Laboratory 1 credits
- CHEM 351 - Organic Chemistry I 3 credits
- CHEM 351L - Organic Chemistry Laboratory I 1 credits
- CHEM 352 - Organic Chemistry II 3 credits
- CHEM 352L - Organic Chemistry Laboratory II 1 credits
- PHYS 105 - General Physics I 3 credits
- PHYS 105L - General Physics I Laboratory 1 credits

Select one from the following (3-4 credits):

- MATH 131 – Calculus I 4 credits
- MATH 241 - Principles of Statistics 3 credits
- BIO 485 - Introduction to Biometry 3 credits

Fourth-year students accepted to the clinical courses register as full-time ISU students and, upon successful completion of the 12-month program, receive the 32-34 credit hours for that are required for completion of the bachelor of science degree.

Required Fourth Year Clinical Biology Courses (32-34 credits):

- BIO 470C - Special Topics in Clinical Laboratory Science 1-10 credits
- BIO 471C - Clinical Microbiology 1-10 credits
- BIO 472C - Clinical Immunology/Serology 1-10 credits
- BIO 473C - Clinical Microscopy 1-10 credits
- BIO 474C - Clinical Hematology 1-10 credits
- BIO 475C - Clinical Immunohematology 1-10 credits
- BIO 476C - Clinical Chemistry 1-10 credits

Note: Completion of required courses does not guarantee admission to the fourth year clinical courses. To be eligible for enrollment in these courses, a student must:

1. Have a minimum grade point average of 2.5 on a 4.0 scale when applying for the clinical year.
2. Gain acceptance into an affiliate hospital program. In general, acceptance is based on academic performance, letters of recommendation, and a personal interview. Each clinical program has an admissions committee that is responsible for decisions regarding acceptance to the program.

Preferred effective term: Fall 2010

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

Computer Science Major (76 credits minimum)

CIP 110101 Major Code: 3023

Brief Summary:

The main changes to the program are the removal of the science requirement and the introduction of two concentrations in the major – Computing Science and Information Science, giving students more choice in topics of concentration. The changes also result in a reduction in the number of credit hours needed for the major from 76 hours to 53 hours for Computing Science and 51 hours for Information Science.

Student Learning:

In Spring 2009, all of the programs in the Department of Mathematics and Computer Science underwent an external program review. The program review recommended the adoption of the Python or Java programming languages in place of C++, emphasizing object orientation early in the curriculum and giving students more choice in selecting courses. The proposed changes incorporate all of these recommendations.

The two concentrations will improve student learning, allowing students to explore in greater depth the theoretical foundations and practical aspects of computer science. The program thus becomes more effective in preparing students for their areas of interest and future endeavors.

Proposed Catalog Copy:

Computer Science Major (51-53 credits)

CIP 110101 Major Code: _____

Required Computer Science Courses (27 credits):

CS 151 Introduction to Computer Science 3 credits
CS 201 Computer Science I 3 credits
CS 202 Computer Science II 3 credits
CS 303 Discrete Structures 3 credits
CS 451 Computer Architecture 3 credits
CS 452 Software Engineering 3 credits
CS 456 Systems Programming 3 credits
CS 470 Programming Languages 3 credits
CS 471 Operating Systems 3 credits

Elective Computer Science Courses (9 credits):

9 credits of computer science courses approved by the student's advisor.

All students must choose one of the following concentrations along with the courses above:

Computing Science Concentration (17 credits):

Required Computer Science Courses:

CS 420 Theory of Computation 3 credits
CS 421 Formal Methods 3 credits
CS 458 Algorithms 3 credits

Required Mathematics Courses:

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

OR

Information Science Concentration (15 credits) :

CS 170 Web Programming 3 credits
CS 457 Data Base Programming 3 credits
CS 469 Unix/Linux Administration and Networking 3 credits
CS 473 Computer Networks 3 credits

CS 479 Web Programming II 3 credits
Preferred effective term: Fall 2010

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

Mathematics Major (40 credits)
CIP Code: 270101 Major Code: 3021

Brief Summary:

The changes to the mathematics major include changes to the required core of mathematics courses. All mathematics majors will take MATH 122, 131, 132, 231, 380, 412, and 413. This core of courses is also required of all mathematics education majors. Additionally, Mathematics majors are required to take MATH 410. Students will then select 12 credit hours of electives from MATH 320, 323, 333, 341, 411, 430, 431, 441, 442 and 490. These changes reduce the number of required hours and increase the number of elective hours, thereby providing greater flexibility to students who may want to focus on a particular area in mathematics. These changes also increase the number of courses common to both mathematics and mathematics education majors. In fact, with appropriate selection of mathematics electives, a mathematics education major can complete the requirements for a mathematics major.

Student Learning:

In Spring 2009, all of the programs in the Department of Mathematics and Computer Science underwent an external program review. One of the recommendations was to align the Mathematics and Mathematics Education Majors as closely as is practicable. The proposed changes address this concern. The Department has long discussed the possibility of creating concentrations in the Mathematics major. The proposed changes which include a reduced number of required courses will make it easier to create concentrations in the Mathematics major at such time as we have more students completing the major. However, the current changes allow students the flexibility to create unofficial concentrations based on their career goals and interests.

Proposed Catalog Copy:

Mathematics Major (42 credits)*
CIP Code: 270101 Major Code: _____

Required Mathematics:

MATH 122 – Analytic Geometry 3 credits
MATH 131 - Calculus I 4 credits
MATH 132 - Calculus II 4 credits
MATH 231 - Calculus III 4 credits
MATH 333 - Differential Equations 3 credits
MATH 380 - Introduction to Abstract Mathematics 3 credits
MATH 410 - Introduction to Analysis 3 credits
MATH 412 - Abstract Algebra I 3 credits

MATH 413 - Linear Algebra I 3 credits

Elective Mathematics:

12 credit hours of directed electives from upper-division mathematics courses, selected from 320, 323, 333, 341, 411, 430, 431, 441, 442, 490. At least 6 hours must be from 400-level courses.

Note: *For the mathematics major at least 18 credit hours of the 42 credit hours of mathematics courses must be taken at Indiana State University. Only in the most exceptional cases will partial exemptions from this requirement be granted.

Preferred effective term: Fall 2010

COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

Mathematics Minor (24 credits)

CIP Code: 270101

Brief Summary:

The changes in the Mathematics Minor reflect changes made in the Mathematics Major. The Minor will require MATH 122 instead of MATH 380. The number of hours remains the same.

Student Learning:

These changes are a result of changes to the Mathematics Major prompted by a recent program review.

Proposed Catalog Copy:

Mathematics Minor (24 credits)*

CIP Code: 270101

Required Mathematics:

MATH 122 Analytic Geometry 3 credits

MATH 131 - Calculus I 4 credits

MATH 132 - Calculus II 4 credits

MATH 231 - Calculus III 4 credits

Elective Mathematics:

9 credits of directed electives from upper-division mathematics courses, except those not open to liberal arts majors. At least 6 credits must be from 400-level courses.

Note: *For the mathematics minor at least 12 of the 24 of the mathematics course credits must be taken at Indiana State University. Only in the most exceptional cases will partial exemptions

from this requirement be granted.
Preferred effective term: Fall 2010

GRADUATE PROPOSALS

COURSE REVISIONS

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Nursing

NURS 646 - Diagnostic Laboratory for Family Nurse Practitioners

1 credit

This course provides the technical skills, as well as diagnostic reasoning processes, which will enable the family nurse practitioner to collect and analyze laboratory specimens accurately and efficiently. Demonstrations and directed laboratory experiences focus on diagnostic tests commonly encountered in primary health care settings. The appropriate preparation and interpretation of screening procedures for the management of chronic and acute illnesses presented throughout the family nurse practitioner curriculum will be included.

Note: Three clinical hours per week.

Change description, note, and add co-requisite to:

NURS 646 - Diagnostic Laboratory for Family Nurse Practitioners

1 credit

This course provides the diagnostic reasoning skills which enables the family nurse practitioner to order and interpret appropriate clinical laboratory tests. Students apply these skills during clinical experiences throughout the family nurse practitioner curriculum for the management of chronic and acute illnesses.

Co-requisite: Taken concurrently with NUR 644.

Note: one hour of didactic coursework each week.

A-F Grading

Preferred effective term: Spring 2011

COURSE BANKING

COLLEGE OF ARTS AND SCIENCES: Psychology

SOC 565 - Comparative Societies

Preferred effective term: Spring 2011

NEW PROGRAMS

BAYH COLLEGE OF EDUCATION: Elementary, Early, and Special Education

Reading Teacher Licensure (15-18 credits)

Brief Summary:

This graduate licensure program is designed for the licensed teacher (K-12) who wishes to add a

reading teacher license. This non-degree program consists of 15 credit hours, depending on whether a prerequisite must be taken. Students can complete this program in one summer and one academic year. The courses that are part of the proposed reading teacher licensure program (ELED 681, 682, 685, 686, 668) articulate into the ELED master's program and the CIMT Ph.D. concentration in literacy.

Student Learning:

Many teachers are interested in adding reading teacher to their existing license. This proposed program is designed to meet Indiana content standards and International Reading Association standards for reading teacher. The proposed courses are already existing courses in the ELED master's program (ELED 681, 682, 685, 686, 668) and the CIMT Ph.D. concentration in literacy (ELED 681, 682, 685, 686). In addition, the prerequisite course (ELED 580) is an already existing course.

Proposed Catalog Copy:

Reading Teacher Licensure (15-18 credits)

This graduate licensure program is designed for the licensed teacher (K-12) who wishes to add a reading teacher license.

This non-degree licensure program consists of 15-18 credit hours, depending on whether prerequisites must be taken. Students can complete this licensure program in one summer and one academic year. Courses are offered through a combination of distance learning and on-campus seminars. All courses are taught by the faculty of the department of Elementary, Early, and Special Education.

Upon completion of the Reading Teacher Licensure Program, individuals are eligible to add a reading teacher license to an existing teaching license. Individuals will be recommended for licensure only at the school level of their current license.

ELED 580 will be waived if the student has completed 9 or more credits of undergraduate reading methods courses from ISU or another accredited institution.

Elementary Education: 681-3 credits; 682-3 credits; 685-3 credits; 686-3 credits; 668-3 credits.
Preferred effective term: Fall 2010