# Academic Notes 

## ** SPECIAL NOTICES**

## FACULTY ATTENDANCE FORM FOR WINTER 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 Saturday, December 15, 2012. 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 Friday, November 16, 2012. 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

Below is the publication schedule for the electronic copy of Academic Notes through January 2, 2013. All submissions for inclusion in Academic Notes are due in the Office of Academic Affairs no later than 11:00 a.m. on the Deadline for Items date shown below. Submissions must be in hard copy along with an email, zip drive, 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
During the summer months, Academic Notes is published every other week. If you have questions, please contact Yvonne Russell in Academic Affairs, extension 3662.

## ACADEMIC NOTES PUBLICATION SCHEDULE <br> FOR FALL 2012

| Deadline for Items | Issue Date |
| :---: | :---: |
| October 31 | November 12 |
| November 7 | November 19 |
| November 14 | November 26 |
| November 21 | December 3 |


| November 28 | December 10 |
| :---: | :---: |
| December 5 | December 17 |
| December 12 | January 2 |

## CURRICULUM

INDEX
Item Page \#
Undergraduate Proposals
New Courses
BIO 481; PHIL 425; PSCI 425 ..... 3
New Courses-Foundational Studies
LLL 101, 102 ..... 3
Course Revisions-Foundational Studies
AHS 305 ..... 4
SOWK 494 .....  5
Program Revisions
Chemistry Minor. .....  5
Mathematics Minor ..... 6
Undergraduate ApprovalsCourse Revisions
CS 170, 201 .....  7
CS 202, 260 .....  8
CS 303, 320, 420 ..... 9
CS 421, 440 ..... 10
CS 451, 452, 456 ..... 11
CS 457, 458 ..... 12
CS 463, 470 ..... 13
CS 471, 473 ..... 14
CS 475, 479 ..... 15
Graduate Proposals
New Courses
BIO 581; PHIL 525; PSCI 525; INS 501 ..... 16
Course Revisions
LLL 709; PSY 664B ..... 17
PSY 665B, 671, 799 ..... 18
New Programs
Certificate in Genomic Advocacy ..... 19
Corrections
AHS 899 ..... 20

## UNDERGRADUATE PROPOSALS

## NEW COURSES

## COLLEGE OF ARTS AND SCIENCES: Biology

## BIO 481 - Genome Science

3 credits
This course provides a fundamental review of the cellular and biomolecular basis of inheritance using a genome-scale perspective. In addition, it will provide a description of emerging genomics technologies and techniques and their practical impact within the application domains of medicine, agriculture, and wildlife management.
A-F Grading
Effective term: Spring 2013

## COLLEGE OF ARTS AND SCIENCES: Philosophy

## PHIL 425-Bioethics of Genome Science

3 credits
After acquiring a basic understanding of principles commonly used in bioethics, students will consider such questions as: Should genes for human diseases be patented? Should human cloning be banned? Should information from genetic testing be available to employers and insurers? Should parents always be told of genetic testing availability?
Note: Open to graduate students. Graduate students are required to do additional work of a research nature
A-F Grading
Effective term: Spring 2013

## COLLEGE OF ARTS AND SCIENCES: Political Science

## PSCI 425 - Policy Implications of Genomic Science

3 credits
This course will examine how genomics is affected by the policy-making process. The course will take an historical view of the debate regarding genomics, the policy which emerged from those debates, and how policy has impacted the use of genomics in the U.S. and throughout the world.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Spring 2013

# NEW COURSES <br> FOUNDATIONAL STUDIES CREDIT 

## COLLEGE OF ARTS AND SCIENCES: Languages, Literatures, and Linguistics

## LLL 101 - Topics in Elementary Language I

3 credits
Introduction to culture and language. Culture, lifestyle and customs of the speakers of a less commonly taught language. Fundamentals of language (pronunciation, intonation, grammatical structures), with development of communicative skills in a cultural context. Includes open-hour laboratory.
Foundational Studies Credit: [FS 2010: Non-Native Language]
A-F Grading
Effective term: Fall 2013

## LLL 102 - Topics in Elementary Language II

3 credits.
Introduction to culture and language. Culture, lifestyle and customs of the speakers of a less commonly taught language. Fundamentals of language (pronunciation, intonation, grammatical structures), with development of communicative skills in a cultural context. Includes open-hour laboratory.
Foundational Studies Credit: [FS 2010: Non-Native Language]
Repeatable: May be repeated for credit, maximum number of hours 6, when the topic is different.
A-F Grading
Effective term: Fall 2013
COURSE REVISIONS
FOUNDATIONAL STUDIES CREDIT

## COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Health Sciences

## AHS 305 - Society and Aging

3 credits
This course provides an introduction to the social aspects of aging and the life course through multiple ways of knowing. Students will differentiate between the aging individual and the aging population, discuss the social implications of an aging society, and seek to understand the social influences on older adults.

Add Foundational Studies Credit to:

## AHS 305 - Society and Aging

3 credits
This course provides an introduction to the social aspects of aging and the life course through multiple ways of knowing. Students will differentiate between the aging individual and the aging population, discuss the social implications of an aging society, and seek to understand the social influences on older adults.
Foundational Studies Credit: [FS 2010: Upper-Division Integrative Electives]

## COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Social Work

## SOWK 494 - Professional Seminar in Social Work

3 credits
Integrates the knowledge base and learning experiences of the total social work program through topical discussions and assignments. Students develop their own practice framework and take a comprehensive examination to demonstrate preparation for practice.
Prerequisites: concurrent enrollment in SOWK 491 and 499; satisfactory completion of all social work courses.

Add Foundational Studies Credit to:

## SOWK 494 - Professional Seminar in Social Work

3 credits
Integrates the knowledge base and learning experiences of the total social work program as well as multiple ways of knowing through topical discussions and assignments. Students develop their own practice framework and take a comprehensive exam to demonstrate preparation for practice. Students integrate the different "ways of Knowing" with emphasis in social and behavioral studies, ethical and social responsibility, and global perspectives and cultural diversity.
Prerequisites: Concurrent enrollment in SOWK 491 and 499; satisfactory completion of all social work courses.
Note: Open to social work majors only.
Foundational Studies Credit [FS 2010: Upper-Division Integrative Electives]
A-F Grading
Effective term: Fall 2013

## PROGRAM REVISIONS

## COLLEGE OF ARTS AND SCIENCES: Chemistry and Physics

Chemistry Minor (22-23 credits)
CIP Code: 400501 Major Code: 1421

## Brief Summary:

CHEM 321 is a required course in both the Chemistry major and minor. Prior to last year, it was a 4 credit course which included lecture and laboratory components. The department created 321L last year ( 1 credit) in order to move the laboratory component into a separate course, with the lecture component remaining in 321 (now 3 credits). Thus, the change would be credit neutral, and the content of 321 and 321L together would be the same as that of the old 4 -credit 321 course. The intent was to require both 321 and 321 L for the Chemistry major and for the minor, as all students need both the lecture and lab components of the course. At the time of the change to the course structure, 321 L was inadvertently left out of the catalog description for the minor. It needs to be added to the minor in order to bring the course listing in line with the total
number of credits and ensure that students take the course to get the necessary laboratory training.

## Proposed Catalog Copy:

Chemistry Minor (23-24 credits)
CIP Code: 400501 Major Code: 1421
Required Chemistry:
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 321 - Analytical Chemistry 3 credits
CHEM 321L - Analytical Chemistry Laboratory 1 credit
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
Elective (3-4 credits):
Choose one of the following:
One 3- or 4- credit chemistry course at the 300 or 400 level with the exception of $330,399,495$, or 499.
Effective term: Fall 2013

## COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

## Mathematics Minor (24 credits)

CIP Code: 110101 Major Code: 3021

## Brief Summary:

This proposal corrects an error in the Math Minor.

## Proposed Catalog Copy:

Mathematics Minor (24 credits)
CIP Code: 110101 Major Code: 3021

## REQUIRED COURSES (15 CREDITS):

Math 122 - Analytic Geometry (3 credits)
Math 131 - Calculus I (4 credits)
Math 132 - Calculus II (4 credits)

## DIRECTED ELECTIVES (9 CREDITS):

9 hours of directed electives from upper-division mathematics courses, except those not open to liberal arts majors.

## NOTES:

For the mathematics major at least 18 credits of the 40 semester credits of mathematics courses must be taken at Indiana State University; and for the mathematics minor at least 12 credits of the 24 semester credits of mathematics courses must be taken at Indiana State University. Only in the most exceptional cases will partial exemptions from this requirement be granted.
Effective term: Fall 2013

## UNDERGRADUATE APPROVALS

## COURSE REVISIONS

## COLLEGE OF ARTS AND SCIENCES: Mathematics and Computer Science

## CS 170 - Web Programming

3 credits
An introduction to World Wide Web programming methods and scripting languages. Includes Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), Dynamic Hypertext Markup Language (DHTML), JavaScript, and VBScript.
Prerequisites: CS 151.
Change prerequisites to:

## CS 170 - Web Programming

3 credits
An introduction to World Wide Web programming methods and scripting languages. Includes Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), Dynamic Hypertext Markup Language (DHTML), JavaScript, and VBScript.
Prerequisites: A grade of C or better in CS 151.
A-F Grading
Effective term: Fall 2013

## 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.
Prerequisites: CS 151.
Change prerequisites to:

## 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.
Prerequisites: A grade of C or better in CS 151.
A-F Grading
Effective term: Fall 2013

## 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.
Prerequisites: CS 201.
Change prerequisites to:
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.
Prerequisites: A grade of C or better in CS 201.
A-F Grading
Effective term: Fall 2013

## CS 260 - Object Oriented Programming

3 credits
Description
Object oriented programming concepts and methods. Includes encapsulation, data abstraction, class development, instantiation, constructors, destructors, inheritance, overloading, polymorphism, libraries, and packages.
Prerequisites: CS 256.
Change prerequisites to:
CS 260 - Object Oriented Programming
3 credits
Description
Object oriented programming concepts and methods. Includes encapsulation, data abstraction, class development, instantiation, constructors, destructors, inheritance, overloading, polymorphism, libraries, and packages.
Prerequisites: A grade of C or better in CS 151.
A-F Grading
Effective term: Fall 2013

## 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. Prerequisites: CS 201.

## Change prerequisites to:

## 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.
Prerequisites: A grade of C or better in CS 201
A-F Grading
Effective term: Fall 2013

## CS 320 - Java Software Development

3 credits
Fundamentals and applications of the Java language. Java classes and packages, data types, control structures, methods, arrays, strings, applets, graphics, threads, GUI development, utility packages, collections, exception handling, tiles and streams, introduction to Java Networking, servlets, and Java Beans.
Prerequisites: CS 260 or MIS 355.
Change number and prerequisites to:

## CS 220 - Java Software Development

3 credits
Fundamentals and applications of the Java language. Java classes and packages, data types, control structures, methods, arrays, strings, applets, graphics, threads, GUI development, utility packages, collections, exception handling, tiles and streams, introduction to Java Networking, servlets, and Java Beans.
Prerequisites: A grade of C or better in CS 151.
A-F Grading
Effective term: Fall 2013

## CS 420 - Theory of Computation

3 credits
A sampling of the different areas of theoretical computer science: finite state concepts, formal grammars and automata, computability, Turing machines, and program verification.
Prerequisites: CS 202 and CS 303
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change prerequisites to:

## CS 420 - Theory of Computation

3 credits
A sampling of the different areas of theoretical computer science: finite state concepts, formal grammars and automata, computability, Turing machines, and program verification.
Prerequisites: A grade of C or better in both CS 202 and CS 303, or consent of instructor.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 421 - Formal Methods

3 credits
Elements of formal logic; various approaches to automation including resolution; restrictions and search methods; inductive theorem-proving; Knuth-Bendix completion; Boyer-Moore theoremprover; applications.
Prerequisites: CS 202 and CS 303
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

CS 421 - Formal Methods
3 credits
Elements of formal logic; various approaches to automation including resolution; restrictions and search methods; inductive theorem-proving; Knuth-Bendix completion; Boyer-Moore theoremprover; applications.
Prerequisites: A grade of C or better in both CS 202 and CS 303, or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 440 - Graphics Programming

3 credits
Development of monochrome and color computer graphics software. Includes animation, twodimensional translation, rotations, clipping, and magnification; introduction to three-dimensional graphics, hidden lines, paging, windowing, and fonts. Computer graphics course project required.
Prerequisites: CS 202 and CS 303
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

## CS 440 - Graphics Programming

3 credits
Development of monochrome and color computer graphics software. Includes animation, twodimensional translation, rotations, clipping, and magnification; introduction to three-dimensional graphics, hidden lines, paging, windowing, and fonts. Computer graphics course project required. Prerequisites: A grade of C or better in both CS 202 and CS 303, or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 451 - Computer Architecture

3 credits
Data representation, number systems and codes, gates and logic, combinational logic, sequential circuits, flip-flops, memory and storage, computer organization, microprogramming, architectures of supercomputers and micros.
Prerequisites: CS 202 and CS 303
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

## CS 451 - Computer Architecture

3 credits
Description
Data representation, number systems and codes, gates and logic, combinational logic, sequential circuits, flip-flops, memory and storage, computer organization, microprogramming, architectures of supercomputers and micros.
Prerequisites: A grade of C or better in both CS 202 and CS 303, or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 452 - Software Engineering

3 credits
This course studies the software life cycle: specification, object-oriented programming and design, program development, validation, testing, debugging, documentation, maintenance, revision control, CASE tools.
Prerequisites: CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change of description and prerequisites to:
CS 452 - Software Engineering
3 credits
This course studies the software life cycle: specification, object-oriented programming and design, program development, validation, testing, debugging, documentation, maintenance, revision control, CASE tools.
The course serves as a culminating experience in the CS major. Students complete a significant software project during the course that ties together much of what has been learned in other CS courses. Students give a presentation describing and demonstrating their project; these presentations are open to the rest of the department.
Prerequisites: Senior standing and a grade of C or better in CS 202, or consent of instructor.
A-F Grading
Effective term: Fall 2013

## CS 456 - Systems Programming

3 credits
An introduction to both program translation and operating systems. There will be a survey of topics such as: top-down and bottom-up parsing, scanning, code generation, symbol table
management, linkers and loaders, batch processing systems, interacting processes, multiprogramming systems, and memory management.
Prerequisites: CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change prerequisites to:

## CS 456 - Systems Programming

3 credits
An introduction to both program translation and operating systems. There will be a survey of topics such as: top-down and bottom-up parsing, scanning, code generation, symbol table management, linkers and loaders, batch processing systems, interacting processes, multiprogramming systems, and memory management.
Prerequisites: A grade of C or better in CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 457 - Data Base Processing

3 credits
Data independence, relational model, relational algebra and calculus, query languages and SQL, conceptual modeling, database design, data dependencies and normalization, access methods, tables, queries, forms, macros and reports, database administration, introduction to transaction processing, concurrent transactions, and recovery. Case studies of commercial database systems such as Oracle and Microsoft SQL Server.
Prerequisites: CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

## CS 457 - Data Base Processing

3 credits
Data independence, relational model, relational algebra and calculus, query languages and SQL, conceptual modeling, database design, data dependencies and normalization, access methods, tables, queries, forms, macros and reports, database administration, introduction to transaction processing, concurrent transactions, and recovery. Case studies of commercial database systems such as Oracle and Microsoft SQL Server.
Prerequisites: A grade of C or better in CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 458 - Algorithms

3 credits
Among the topics covered are: review of basic data structures and their implementations; graphs, both directed and undirected; analysis of algorithms; sorting, searching, and merging, both internal and external methods; memory management algorithms; mathematical algorithms; and,
as time allows, advanced topics such as NP-complete problems.
Prerequisites: CS 202 and CS 303
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

## CS 458 - Algorithms

3 credits
Among the topics covered are: review of basic data structures and their implementations; graphs, both directed and undirected; analysis of algorithms; sorting, searching, and merging, both internal and external methods; memory management algorithms; mathematical algorithms; and, as time allows, advanced topics such as NP-complete problems.
Prerequisites: A grade of C or better in both CS 202 and CS 303, or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 463 - Compiler Design

3 credits
An introduction to compiler design. Methods of lexical analysis, parsing, and code generation will be studied. Other topics such as error recovery and code optimization will be covered as time permits.
Prerequisites: CS 202
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

CS 463 - Compiler Design
3 credits
An introduction to compiler design. Methods of lexical analysis, parsing, and code generation will be studied. Other topics such as error recovery and code optimization will be covered as time permits.
Prerequisites: A grade of C or better in CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 470 - Programming Languages

3 credits
The purpose of the course is to develop an understanding of the organization of programming languages and introduce the formal study of programming language specification and analysis. Topics covered usually include: language definition structure, data types and structures, control structures and data flow, run-time consideration, interpretative languages, lexical analysis, and parsing.
Prerequisites: CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## CS 470-Programming Languages

3 credits
The purpose of the course is to develop an understanding of the organization of programming languages and introduce the formal study of programming language specification and analysis. Topics covered usually include: language definition structure, data types and structures, control structures and data flow, run-time consideration, interpretative languages, lexical analysis, and parsing.
Prerequisites: A grade of C or better in CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 471 - Operating Systems

3 credits
Major topics include system structure, memory management, and process management. Handson experience using the department's minicomputer facilities are an important part of the course.
Prerequisites: CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

CS 471 - Operating Systems
3 credits
Major topics include system structure, memory management, and process management. Handson experience using the department's minicomputer facilities are an important part of the course.
Prerequisites: A grade of C or better in CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 473 - Computer Networks

3 credits
The course is an introduction to networking and includes detailed study of Internet protocols and socket programming. Topics include a study of IP, UDP, and TCP protocols, as well as application layer protocols such as HTTP and SMTP. Students learn to program both a client and server.
Prerequisites: CS 202.
Change prerequisites to:

## CS 473 - Computer Networks

3 credits
Description
The course is an introduction to networking and includes detailed study of Internet protocols and socket programming. Topics include a study of IP, UDP, and TCP protocols, as well as application layer protocols such as HTTP and SMTP. Students learn to program both a client and server.

Prerequisites: A grade of C or better in CS 202 or consent of instructor.
A-F Grading
Effective term: Fall 2013

## CS 475 - Artificial Intelligence

3 credits
Concepts and applications, including artificial intelligence programming languages, history, present and future development and research, expert systems, natural language processing, intelligent machines/robots, and vision. Development of artificial intelligence course project.
Prerequisites: CS 202
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

## Change prerequisites to:

## CS 475-Artificial Intelligence

3 credits
Concepts and applications, including artificial intelligence programming languages, history, present and future development and research, expert systems, natural language processing, intelligent machines/robots, and vision. Development of artificial intelligence course project.
Prerequisites: A grade of C or better in CS 202 or consent of instructor.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Fall 2013

## CS 479 - Web Programming II

3 credits
Advanced programming for the World Wide Web and the Internet. This course includes three approaches: the older CGI/PERL, Microsoft's Active Server Pages (ASP), and Sun's Java Server Pages (JSP). The course also includes the setup and configuration of World Wide Web servers including Apache and Microsoft's IIS.
Prerequisites: CS 170 and 202 or consent of instructor.
Change prerequisites to:
CS 479 - Web Programming II
3 credits
Advanced programming for the World Wide Web and the Internet. This course includes three approaches: the older CGI/PERL, Microsoft's Active Server Pages (ASP), and Sun's Java Server Pages (JSP). The course also includes the setup and configuration of World Wide Web servers including Apache and Microsoft's IIS.
Prerequisites: A grade of C or better in CS 170 and 201 or consent of instructor.
A-F Grading
Effective term: Fall 2013

# GRADUATE PROPOSALS 

NEW COURSES

## COLLEGE OF ARTS AND SCIENCES: Biology

## BIO 581 - Genome Science

3 credits
This course provides a fundamental review of the cellular and biomolecular basis of inheritance using a genome-scale perspective. In addition, it will provide a description of emerging genomics technologies and techniques and their practical impact within the application domains of medicine, agriculture, and wildlife management.
A-F Grading
Effective term: Spring 2013

## COLLEGE OF ARTS AND SCIENCES: Philosophy

## PHIL 525-Bioethics of Genome Science

3 credits
After acquiring a basic understanding of principles commonly used in bioethics, students will consider such questions as: Should genes for human diseases be patented? Should human cloning be banned? Should information from genetic testing be available to employers and insurers? Should parents always be told of genetic testing availability?
A-F Grading
Effective term: Spring 2013

## COLLEGE OF ARTS AND SCIENCES: Political Science

## PSCI 525-Policy Implications of Genomic Science

3 credits
This course will examine how genomics is affected by the policy-making process. The course will take an historical view of the debate regarding genomics, the policy which emerged from those debates, and how policy has impacted the use of genomics in the U.S. and throughout the world.
Note: Open to graduate students. Graduate students are required to do additional work of a research nature.
A-F Grading
Effective term: Spring 2013

## SCOTT COLLEGE OF BUSINESS: Accounting, Finance, Insurance, and Risk Management

## INS 501 - Business \& Consumer Implications of Genome Science

3 credits
This course will examine implications of genomics and personalized medicine from the perspectives of consumers, employers, and other stakeholders on various issues including
nondiscrimination laws; insurance coverage and reimbursement; privacy and confidentiality issues, intellectual property opportunities; appropriate communication modalities for reaching underserved populations; and personal and corporate risk management strategies.
A-F Grading
Effective term: Spring 2013

## COURSE REVISIONS

## COLLEGE OF ARTS AND SCIENCES: Languages, Literatures, and Linguistics

## LLL 709 - Advanced Internship in Languages, Literatures, and Linguistics

3 credits
Practicum designed to provide direct, supervised experiences for advanced graduate students in the area of languages, literatures, and linguistics. The experiences are tailored to the needs of the student. The area in which the internship is taken will be designated on the student's transcript. For example internship: Spanish translation.
Note: May be repeated for credit.
Change credits and description to:
LLL 709 - Advanced Internship in Languages, Literatures, and Linguistics
1-4 credits.
Practicum designed to provide direct, supervised experiences for advanced graduate students in the area of Languages, Literatures, and Linguistics. The experiences are tailored to the needs of the student.
Prerequisite: Minimum of 15 credits of graduate coursework in the appropriate language area including LLL 600.
Repeatable: May be repeated for up to six credits.
S-U Grading
Effective term: Fall 2013

## COLLEGE OF ARTS AND SCIENCES: Psychology

## PSY 664B - Projective Personality Assessment

2 credits
One of a sequence of three courses on assessment. The focus is on projective techniques in personality evaluation.
Prerequisites: PSY 664A and consent of instructor.
Note: Some clinical courses involving practical work are open only to students in clinical psychology.

Change credits to:
PSY 664B - Projective Personality Assessment
3 credits
One of a sequence of three courses on assessment. The focus is on projective techniques in personality evaluation.
Prerequisites: PSY 664A and consent of instructor.
Note: Some clinical courses involving practical work are open only to students in clinical psychology.
A-F Grading

## PSY 665B - Behavior Therapy

3 credits
The second of a sequence of three courses on psychological treatment. This course covers theories and techniques of behaviorally oriented treatments.
Prerequisites: PSY 665A and consent of instructor.
Note: Some clinical courses involving practical work are open only to students in clinical psychology.

Change title to:
PSY 665B - Cognitive Behavior Therapy
3 credits
The second of a sequence of three courses on psychological treatment. This course covers theories and techniques of behaviorally oriented treatments.
Prerequisites: PSY 665A and consent of instructor.
Note: Some clinical courses involving practical work are open only to students in clinical psychology.
A-F Grading
Effective term: Fall 2013

## PSY 671 - Clinical Supervision and Consultation

3 credits
This course covers clinical supervision and consultation. Course work is integrated with opportunities to supervise under faculty direction.
Prerequisites: PSY 665C and consent of instructor.
Note: Some clinical courses involving practical work are open only to students in clinical psychology.

Change title to:

## PSY 671 - Clinical Supervision

3 credits
This course covers models and methods of clinical supervision. Course work is integrated with opportunities to supervise under faculty direction
Prerequisites: PSY 665C and consent of instructor.
Note: Some clinical courses involving practical work are open only to students in clinical psychology.
A-F Grading
Effective term: Fall 2013

## PSY 799 - Dissertation

3-12 credits
The dissertation should make a significant contribution to knowledge relevant to the professional practice of clinical psychology.
Prerequisites: Admission to candidacy.
Note: The course may be repeated for credit. Once the project is approved the candidate must register for it each term. Twelve credit hours are required.

Change credits to:
PSY 799 - Dissertation

1-12 credits
The dissertation should make a significant contribution to knowledge relevant to the professional practice of clinical psychology.
Prerequisites: Admission to candidacy.
Note: The course may be repeated for credit. Once the project is approved the candidate must register for it each term. Twelve credit hours are required.
A-F Grading
Effective term: Fall 2013

## NEW PROGRAMS

## COLLEGE OF ARTS AND SCIENCES: Biology

## Certificate in Genomic Advocacy ( 15 credits) CIP Code: 260101 Major Code:

## Brief Summary:

Certificate Program in Genomic Advocacy -A working knowledge of genomics will benefit those interested in health- and conservation-related fields as they must learn to interpret genomic data and understand the societal issues arising from insurance, legal, and ethical issues. Similarly, students of political science, criminology, and business must interpret genomic information while understanding its limitations if they are to effectively establish policy. To instill an interdisciplinary understanding of genomics, a15-credit hour certificate, including courses in biological genomics, genomics issues in business, genomics policy, and bioethics ( 12 credits), plus an elective of choice ( 3 credits). The classes will be offered as 500 -level distance courses so they are open to graduate students, as well as non-traditional students who are already in the health and nursing, insurance, law, criminology, or the business workforce. The certificate could be completed in 1 year ( 1 academic year plus a summer). This certificate is part of the Unbounded Possibilities initiative.

Through the UP initiative we were able to build connections for this program through many stakeholders across all Colleges of the University. We are offering a core set of courses with electives in many existing programs at ISU. Our goal is to attract new students to existing graduate programs at ISU as well as providing additional opportunities for students to strengthen their academic background and provide them with an competitive edge in the job market.

## Proposed Catalog Copy:

Certificate in Genomic Advocacy ( 15 credits) CIP Code: 260101 Major Code:

The certificate in Genomic Advocacy is meant to introduce students to the ethical, business and political issues that surround the field of genomic science and how they are interconnected to impact personalized medicine, healthcare, public policy, business/insurance/risk management, education, and other fields of science. Genomics has a far-reaching impact on humanity with many social and ethical issues to be addressed in the future.

## Required Courses ( 12 credits):

BIO 581: Genome Science
PA 525: Policy Implications of Genome Science
PHI 525: Bioethics of Genome Science
INS 501: Business and Consumer Implication of Genomics

Elective Courses (3 credits):

Choose one of the following:

BIO 587: Bioinformatics
INS 532: Employee Benefits
HRD 525: Organizational Development
PA 608: Legal Environment of Public Administration
COUN 666: Multicultural Counseling
Effective term: Spring 2013

## CORRECTIONS

The following corrections are reflected in *bold and italics:

## COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Applied Health Sciences

## AHS 899 - Dissertation

1-9 credits
For all doctoral students. Offered by arrangement with the chairperson of the student's dissertation committee.
Prerequisites: research core courses, health core courses, and admission to candidacy.
Repeatable: May be repeated a maximum of 18 credits
*A-F Grading
Effective term: Spring 2013

