



Academic Notes

December 15, 2008

AN 2008-2009

ACADEMIC NOTES PUBLICATION SCHEDULE **FOR FALL 2008**

Below is the circulation schedule for the electronic copy of *Academic Notes* through December 22, 2008. 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 FALL 2008**

Deadline for Items

December 17

Issue Date

December 22

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: Geography, Geology, and Anthropology

GEOL 170L - Earth Science Laboratory

1 credit

One two-hour laboratory per week in Earth Sciences that closely parallels the material in GEOL 170. Laboratories will focus on practical applications of earth science principles through hands on experiences to solve earth and environmental problems.

A-F Grading

Preferred effective term: Spring 2009

COURSE REVISIONS

COLLEGE OF TECHNOLOGY: Aviation Technology

AVT 205 – General Aviation Operations

3 credits.

Organization and operation of small airport aviation facilities. Included will be flight line operations, aircraft maintenance, sales, administration, state and federal regulations, and community relations.

Prerequisites: 141 and 143; or consent of instructor.

Change prerequisites to:

AVT 205 – General Aviation Operations

3 credits

Organization and operation of small airport aviation facilities. Included will be flight line operations, aircraft maintenance, sales, administration, state and federal regulations, and community relations.

A-F Grading

Prerequisites: AVT 141 or consent of instructor.

Preferred effective term: Fall 2009

AVT 211 – Aircraft Systems I

3 credits

Introduction to basic aircraft systems found on modern single and multi-engine reciprocating aircraft. Topics will include piston engines, electrical systems, hydraulic and pneumatic systems, radios and instruments, propellers, maintenance requirements and documentation, and troubleshooting from the cockpit.

Prerequisites: 141 and 143; or consent of instructor.

Change title and prerequisites to:

AVT 211 – Reciprocating Aircraft Systems

3 credits

Introduction to basic aircraft systems found on modern single and multi-engine reciprocating aircraft. Topics will include piston engines, electrical systems, hydraulic and pneumatic

systems, radios and instruments, propellers, maintenance requirements and documentation, and troubleshooting from the cockpit.

Prerequisites: AVT 141 or consent of instructor.

A-F Grading

Preferred effective term: Fall 2009

AVT 241 – Advanced Navigation Systems

3 credits.

Advanced navigation systems to include HSIs, RMIs, Loran, Doppler, Omega, and GPS. Will include navigation theory, in-flight emergencies, electronic instruments, and advance flight computing problems.

Prerequisite: 143 or consent of instructor.

Change prerequisite to:

AVT 241 – Advanced Navigation Systems

3 credits

Advanced navigation systems to include HSIs, RMIs, Loran, Doppler, Omega, and GPS. Will include navigation theory, in-flight emergencies, electronic instruments, and advance flight computing problems.

Prerequisite: AVT 141 or consent of instructor.

A-F Grading

Preferred effective term: Fall 2009

AVT 323 – Air Traffic Control Systems

3 credits.

Includes basic traffic control procedures and phraseology. Areas include a description of the National Airway System to include centers, approach control, towers, and flight service stations. Also included will be controller responsibilities and techniques, current equipment familiarization, and aircraft control adjustments.

Prerequisites: 141 and 143; or consent of instructor.

Change prerequisite to:

AVT 323 – Air Traffic Control Systems

3 credits

Includes basic traffic control procedures and phraseology. Areas include a description of the National Airway System to include centers, approach control, towers, and flight service stations. Also included will be controller responsibilities and techniques, current equipment familiarization, and aircraft control adjustments.

Prerequisites: AVT 141 or consent of instructor.

A-F Grading

Preferred effective term: Fall 2009

PROGRAM REVISIONS

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES: Physical Education

Physical Education All Grade Major (52 semester credits)

CIP Code: 131314 Major Code: 19A523

Brief Summary:

The main reason to modify the Physical Education (PE) - All Grade curriculum is to reduce program requirement credit credits while meeting the state standards without compromising the integrity of the program. The current PE all grade program should be revised to reduce the existing 89 credit credits for program completion toward 76 credit credits including required College of Education coursework. The revised curriculum would allow the students to complete program requirements in a timelier manner while pursuing a double major with health education or other concentration and minor options (i.e., Coaching, Strength & Conditioning minor, Dance minor, Martial arts minor, Driver Education.)

Student Learning:

The Indiana Department of Education licenses physical education teachers and health education teachers separately, although school corporations want teachers who are licensed to teach both. This revised program would allow the students to complete program requirements in a timelier manner while pursuing the double major program option or other minor or concentration options. Currently 184 credit credits are required to complete PE/Health double major programs for licensing (89 credits PE, 41 credits HE, 54 credits Gen Ed). The proposed program would help graduates complete both PE/Health education programs in timely manner or provide more options toward minor or concentration programs for more marketability.

Proposed Catalog Copy:

Graduates of the Physical Education Teacher Education program are qualified to teach physical education in the public schools of Indiana, and most other states, at the elementary, middle, and high school levels. Graduates pursuing a double major program option with health education program will be qualified to teach both Physical Education and Health Education in the public schools of Indiana, and most other states, at the middle and high school levels while they will be qualified to teach Physical Education at the elementary school level as well. A coaching concentration to prepare students as coaches at the middle or high school level is also available. Exercise science majors are qualified in the continuously growing field of exercise and fitness to work in a variety of areas including cardiac rehabilitation, personal training, and wellness and fitness programs in business, healthcare, or community-based agencies.

TEACHING CURRICULA

Students should be thoroughly familiar with the requirements for the teaching curriculum and admission to the Teacher Education Program. Additionally, students will follow the required sequence of professional courses and admission requirements in the College of Education. Refer to the College of Education and the Department of Curriculum, Instruction, and Media Technology in this Catalog.

Physical Education All Grade Major (47 credits)

CIP Code: 131314 Major Code: _____

This major may be added to the All Grade Education Instructional License.

Required Skill Proficiencies (10 credits)

- PE 211 – Net Sports in Educational Settings 2 credits
- PE 212 – Territorial Sports in Educational Settings 2 credits
- PE 213 – Dance in Educational Settings 2 credits
- PE 214 – Physical Education for Children 2 credits
- PE 217 – Physical Fitness in Educational Settings 2 credits

Theory and Methods (27 credits)

- PE 201 – Introduction to Kinesiology 3 credits
- PE 266 – Human Growth and Motor Development 3 credits
- PE 290 – Instructional Strategies in Physical Education 3 credits
- PE 302 – Teaching Elementary Physical Education 3 credits
- PE 310 – Teaching Secondary Physical Education 3 credits
- PE 366 – Human Motor Learning 3 credits
- PE 404 – Scientific Aspects of Physical Education and Coaching 3 credits
- PE 442 – Assessment in Physical Education 3 credits
- PE 466 – Social Behavioral Aspects of Physical Education 3 credits

Required Cognate (6 credits)

- ATTR 210 – Human Anatomy for Allied Health Professions 2 credits
- ATTR 210L – Human Anatomy for Allied Health Professions Laboratory 1 credit
- PE 220 – Human Physiology for Allied Health Professions 2 credits
- PE 220L – Human Physiology for Allied Health Professions Laboratory 1 credit
- or
- BIO 231 – Human Anatomy 2 credits
- BIO 231L – Human Anatomy Laboratory 1 credit
- BIO 241 – Human Physiology 2 credits
- BIO 241L – Human Physiology Laboratory 1 credit

Required Professional Education (4 credits)

- PE 400 – Teaching an Integrated Unit in Physical Education 1 credit
- PE 497 – Adapted Physical Education 3 credits

Preferred effective term: Fall 2009

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

Information Technology Major (51 credits)

CIP Code: 110103 Major Code: 3026

Brief Summary:

This proposal is to expand the list of approved electives in the Information Technology major by four existing courses. This will not change the the Basic Core or Second Level Core in the major or substantively change the major in any way. The following courses are:

- ECT 231, Digital Computer Logic
- ECT 232, Digital Computer Circuits
- ECT 281, Robotic Controls

Student Learning:

ECT 231 and 232 will provide an avenue for Information Technology majors who so choose, to gain a more in depth understanding of digital logic and digital electronics. These topics are cogent for any graduate of the IT major seeking employment in the IT industry.

ECT 281 and 381 will provide an avenue for Information Technology majors who so choose, to gain a more in depth understanding of robotics and robotic control systems. Many graduates of the IT major will find employment in the manufacturing arena where robotics are common.

Proposed Catalog Copy:

Information Technology Major (51 credits)

CIP Code: 110103 Major Code: _____

The information technology major requires a core curriculum of 36 credits of course work in computer science, electronics and computer technology, and management information systems. Students also complete a 15-credit specialized track developed in conjunction with a faculty advisor. For descriptions of the information technology major courses, consult the appropriate department or program sections in this Catalog.

Students will also have open elective credits that can be used to take additional mathematics or business courses, or to explore courses that are part of another information technology track, or to take advantage of the University's rich liberal arts opportunities. Some or all of the elective credits may be used to facilitate the transfer of course work from other majors or institutions.

Required Courses:

Basic Core (18 credits):

- CS 151 - Introduction to Computer Science 3 credits
- CS 170 - Web Programming 3 credits
- CS 256 - Principles of Structured Design 3 credits
- ECT 172 - Computer Components Essentials 3 credits

Choose one from the following:

- ECT 170 - Introduction to Information Technology 3 credits
- MIS 110 - Business Information Processing Systems 3 credits

Choose one from the following:

- ECT 160 - Electronic Fundamentals 3 credits
- ECT 174 - Fundamentals of Electronics 3 credits

Second Level (18 credits):

- CS 260 - Object Oriented Programming 3 credits
- CS 457 - Data Base Processing 3 credits
- ECT 437 - Industrial Computer Systems Management 3 credits
- MIS 301 - Systems Analysis for Information Technology 3 credits

Choose one from the following:

- CS 320 - Java Software Development 3 credits
- ECT 372 - Advanced Computer Components 3 credits

Choose one from the following:

- ECT 373 - Introduction to Data Communications and Networking 3 credits

Electives (15 credits):

Students, in conjunction with an advisor, select courses from the following electives. Appropriately chosen courses lead to specializations in networking, database development and administration, digital communication, and digital multimedia.

- ARTD 400K - Graphic Design Workshop 1-6 credits
- ARTD 420 - Web Page Design 3 credits
- ARTD 422 - Marketing Graphics 3 credits
- CS 253 - COBOL Programming 3 credits
- CS 258 - Data Structures 3 credits
- CS 357 - COBOL Programming II 3 credits
- CS 361 - Small-Systems Software Development I 3 credits
- CS 365 - Computer Organization and Assembly Language 3 credits
- CS 440 - Graphics Programming 3 credits
- CS 452 - Software Engineering 3 credits
- CS 457 - Data Base Processing 3 credits
- CS 458 - Algorithms 3 credits
- CS 463 - Compiler Design 3 credits
- CS 469 - Unix/Linux Administration and Networking 3 credits
- CS 470 - Programming Languages 3 credits
- CS 471 - Operating Systems 3 credits
- CS 475 - Artificial Intelligence 3 credits
- CS 477 - Advanced Data Base Processing and Administration 3 credits
- CS 481 - Client/Server and n-tier Database Utilization 3 credits
- CS 483 - Database Development for the Web 3 credits
- ECT 231 - Digital Computer Logic 3 credits
- ECT 232 - Digital Computer Circuits 3 credits
- ECT 281 - Robotic Controls 3 credits
- ECT 351 - Cooperative Industrial Practice 3 credits
- ECT 381 - Robotic Control Systems 3 credits
- ECT 490 (A, D-Z) - Topics in Electronics and Computer Technology 1-3 credits
- GEOG 242 - Introduction to Geographic Information Systems 3 credits
- GEOG 442 - Geographic Information Systems: Applications 3 credits

- GEOG 446 - Automated Cartography 3 credits
- MIS 276 - Business Information Processing Systems 3 credits
- MIS 310 - Business Applications Development I 3 credits
- MIS 355 - Survey of Object-Oriented Programming Languages 3 credits
- MIS 376 - Business Computer Systems 3 credits
- MIS 380 - Business Applications Development II 3 credits
- MIS 430 - Distributed Data Processing 3 credits
- MIS 431 - Managing Local Area Networks I 3 credits
- MIS 475 - Seminar in Current MIS Topics 3 credits
- PSY 340 - Cognition in Everyday Life 3 credits

Preferred effective term: Fall 2009

UNDERGRADUATE APPROVALS

COURSE REVISIONS

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

SPAN 403A - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Add prerequisite to:

SPAN 403A - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Prerequisite: SPAN 301 or equivalent.

Preferred effective term: Fall 2009

SPAN 403B - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Add prerequisite to:

SPAN 403B - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Prerequisite: SPAN 301 or equivalent.

Preferred effective term: Fall 2009

SPAN 403C - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Add prerequisite to:

SPAN 403C - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Prerequisite: SPAN 301 or equivalent.

Preferred effective term: Fall 2009

SPAN 403D - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Add prerequisite to:

SPAN 403D - Spanish Study Abroad

2-3 credits

Elementary, intermediate, advanced, or graduate studies in Spanish language, literature, and culture in a foreign country where Spanish is the native language.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Prerequisite: SPAN 301 or equivalent.

Preferred effective term: Fall 2009

COLLEGE OF TECHNOLOGY: Technology Management

CTE 381 - Principles and Philosophy of Vocational Education

3 credits

Fundamental philosophy, principles, and objectives of vocational education in various service areas.

Cross-listed: (Also listed as Family and Consumer Sciences 381.)

Change title, description, and remove cross-listing to:

CTE 381- Principles and Philosophy of Career and Technical Education

3 credits.

Fundamental philosophy, principles and objectives of career & technical education in various services areas.

A-F Grading

Preferred effective term: Spring 2009

CTE 472 - Developing Teaching Materials for Vocational Technical Education

3 credits

Planning and construction of teaching devices to improve presentations. Development of cutaways, mock-ups, scale models, charts, transparencies, and other media.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change title and description to:

CTE - 472 Developing Teaching Materials for Career and Technical Education

3 credits.

Planning and construction of teaching devices to improve presentations. Development of instructional aids and integrating technology into instruction.

A-F Grading

Preferred effective term: Spring 2009

CTE 481 - Organization and Coordination of Vocational Education

3 credits

A study of the local, area, state, regional, and federal relationships necessary for effective vocational education.

Prerequisites: CTE 381 or equivalent. (Also listed as Family and Consumer Sciences 481.)

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change title, description, and remove cross-listing to:

CTE 481 - Organization and Coordination of Career and Technical Education

3 credits. A study of the local, area, state, regional, and federal relationships necessary for effective career and technical education.

Prerequisite: CTE 381.

A-F Grading

Preferred effective term: Spring 2009

CTE 483 - Implementation and Administration of Vocational Technical Organizations

3 credits

Various organizations with which a trade and industrial teacher is involved. Student organizations, advisory committees, membership, and participation in professional organizations.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change title and description to:

CTE 483 - Implementation and Administration of Career and Technical Education Organizations

3 credits

Various organizations with which a trade and industrial teacher is involved. Student organizations, advisory committees, membership, and participation in professional organizations.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

Preferred effective term: Spring 2009

CTE 485 - Industrial Cooperative Education

3 credits

Development, organization, and selection of course materials for the related ICT programs. Study of school-employer relationships and expectations of program participants.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change title and description to:

CTE 485 - Instructional Strategies in Career and Technical Education Programs

3 credits

Development, organization, and selection of instructional techniques and materials for community colleges. Study of teaching and evaluation techniques for community colleges.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

Preferred effective term: Spring 2009

CTE 494 - Industrial Vocational Technical Education Workshop

1-3 credits.

Designed to meet specific needs of educators in vocational areas; technical, professional, and administrative problems.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

Change title and description to:

CTE 494 - Career and Technical Education Workshop

1-3 credits.

Designed to meet specific needs of educators in career and technical education areas; technical, professional, and administrative problems.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

Preferred effective term: Spring 2009

COURSE REACTIVATIONS

COLLEGE OF NURSING, HEALTH, AND HUMAN SERVICES

HLTH 446 Individual, Community, and General Safety Education

3 credits

Emphasizes the strategies designed to prevent accidents, develops the concept of self-help and mutual aid in accident and disaster occurrences, and reinforces the need to minimize losses in the social, economic, physical, and emotional criteria of human conservation. Also, it is designed to provide an overview of the major safety problems of our times and to promote safety education in schools, social agencies, and the community.

Note: Open to graduate students. Graduate students are required to do additional work of a research nature.

A-F Grading

Preferred effective term: Spring 2009

CORRECTIONS

The following course was published as approved on December 8, 2008. The correction is listed in italics and bold face.

COLLEGE OF ARTS AND SCIENCES: African and African American Studies

AFRI 399 - Topics in African and African American Studies

3 credits

The study of designated topics on African and African American subject areas. Topic and content to be arranged by faculty members involved.

Note: One or more topics may be offered in the same or alternate years.

Change credits and repeatable to:

AFRI 399 - Topics in African and African American Studies

1-3 credits

The study of designated topics on African and African American subject areas. Topic and content to be arranged by faculty members involved.

Repeatable: up to 6 credits.

Note: One or more topics may be offered in the same or alternate years.

A-F Grading

Preferred effective term: Spring 2009