



Academic Notes

MAY 7, 2007

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ACADEMIC NOTES PUBLICATION SCHEDULE **FOR SUMMER 2007**

Below is the circulation schedule for the electronic copy of *Academic Notes* through August 13, 2007. 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/site/acad-aff/2315.html>

ACADEMIC NOTES PUBLICATION SCHEDULE **FOR SUMMER 2007**

<u>Deadline for Items</u>	<u>Issue Date</u>
May 16	May 21
May 30	June 4
June 13	June 18
June 27	July 2
July 11	July 16
July 25	July 30
August 8	August 13

THESES, DISSERTATIONS, AND RESEARCH PROJECTS

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

Todd Sink will defend his thesis entitled *Chicago and HOPE VI: Examining the Dislocation of Urban Poor*, on Wednesday, May 16, 2007, at 1:00 p.m., in the Science Building, room 110.

Members of his committee are: Dr. Brian Ceh, Chairperson; Dr. Nancy Obermeyer, and Dr. Kathleen Heath.

COLLEGE OF ARTS AND SCIENCES: Political Science

Shyam Kulkarni will defend his dissertation entitled *The International Politics of Domestic Change: Myanmar, ASEAN, and the American Led World Order*, on Thursday, May 10, 2007, at 12:30 p.m., in Holmstedt Hall, room 223. Members of his committee are: Dr. Michael Chambers, Chairperson; Dr. Glenn E. Perry, and Dr. Ann Foster.

COLLEGE OF EDUCATION: Educational Leadership, Administration, and Foundations

Susan Delong will defend her dissertation entitled *A Study of the Relationship Between the Utilization of NWEA Map Testing and Student Achievement*, on Thursday, May 17, 2007, at 10:00 a.m., in the College of Education, Room 1214. Members of her committee are: Dr. Robert Boyd, Chairperson; Dr. Greg Ulm and Dr. Richard Wood.

COLLEGE OF TECHNOLOGY

Thomas Burns will defend his dissertation entitled *The Effect of Selected Request for Information Variables on Steel Fabrication Outcomes*, on Thursday, May 17, 2007, at 10:00 a.m., through videoconference from East Carolina University, in the Dean's conference room, TA 113, College of Technology. Members of his committee are: Dr. David L. Batie, East Carolina University, Chairperson; Dr. Lee Ellingson, Indiana State University; Dr. Eric Connell, East Carolina University; Dr. George Suckarieh, Cincinnati University; and Dr. Bruce Dallman, Pittsburg State University.

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UNDERGRADUATE PROPOSALS

NEW COURSES

COLLEGE OF TECHNOLOGY: Electronics and Computer Technology

ECT 168 Computer Design Technology—3 hours. This course introduces critical thinking, problem-solving concepts using computer programming and computer aided design tools. Students will gain the knowledge to develop technical skills necessary to solve problems in computer engineering technology.

† Indicates course has a laboratory component.

Preferred effective date: Fall 2007

ECT †301 Computer Network Management Technology—3 hours. Introduces and defines concepts involving network topology, network devices, protocols, and the Open System Interconnect Reference Model (OSIRM). The elements of a LAN, current issues and products, and system administration are emphasized. Prerequisite: 232.

† Indicates course has a laboratory component.

Preferred effective date: Fall 2007

ECT †303 Microcontroller Hardware and Software—3 hours. Introduces students to microcontroller principles, including hardware and software models. Students study hardware architecture, operation and function of a microcontroller, and develop programs based on its instruction set. Prerequisite: 232.

† Indicates course has a laboratory component.

Preferred effective date: Fall 2007

ECT 306 Technical Data Management and Applications—3 hours. Introduces database architectures, capabilities, data structures, and typical applications at the factory and the enterprise levels. Factory information systems, data filtering, data for quality analysis, and summary report generation are studies. Prerequisite: 301.

Preferred effective date: Fall 2007

ECT †308 Microcontroller Applications and Interfacing—3 hours. Students study microcontroller organization and its associated peripheral components focusing on embedded control applications. Interconnection, I/O interfacing, bus timing relationships, memory expansion, interrupts, serial, and parallel communication will be covered. Prerequisite: 303.

† Indicates course has a laboratory component.

Preferred effective date: Fall 2007

ECT 401 Data Communications and Internet Technology—3 hours. Introduces fundamentals for delivering information from a source through a medium to a destination. Students study data communications hardware, software components, and methodologies in networking and the Internet. Prerequisite: 301.

Preferred effective date: Fall 2007

ECT†403 Practical Digital Logic Design—3 hours. Introduces the Hardware Description Language (HDL) for developing, verifying, and synthesizing designs of digital circuits. CAE tools are used to design circuits for Application Specific Integrated Circuits (ASICs) and/or Field Programmable Gate Array (FPGA) implementation. Prerequisite: 232.

† Indicates course has a laboratory component.

Preferred effective date: Fall 2007

ECT 406 Computer Systems Integration—3 hours. The factory floor to the business enterprise and the process-to-enterprise chain are parts of computer-based system integration. Students study the methodology for accomplishing the system integration process and apply concepts through case-study exercises. Prerequisite: 306.

Preferred effective date: Fall 2007

COURSE REVISIONS

COLLEGE OF ARTS AND SCIENCES: English

430 Literature and Culture of the Middle Ages—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the Middle Ages.

Add prerequisite

430 Literature and Culture of the Middle Ages—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the Middle Ages. Prerequisite: 250.

Preferred effective date: Spring 2008

431 Literature and Culture of the Renaissance—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the Renaissance.

Add prerequisite

431 Literature and Culture of the Renaissance—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the Renaissance. Prerequisite: 250.

Preferred effective date: Spring 2008

432 Literature and Culture of the Seventeenth and Eighteenth Centuries—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the

seventeenth and eighteenth centuries.

Add prerequisite

432 Literature and Culture of the Seventeenth and Eighteenth Centuries—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the seventeenth and eighteenth centuries. Prerequisite: 250.

Preferred effective date: Spring 2008

433 Literature and Culture of the Nineteenth Century—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the nineteenth century.

Add prerequisite

433 Literature and Culture of the Nineteenth Century—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the nineteenth century. Prerequisite: 250.

Preferred effective date: Spring 2008

434 Literature and Culture of the Twentieth Century—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the twentieth century.

Add prerequisite

434 Literature and Culture of the Twentieth Century—3 hours. Major works of Western literature studied within the context of the intellectual and artistic movements of the twentieth century. Prerequisite: 250.

Preferred effective date: Spring 2008

440 Early American Literature—3 hours. Representative American literature from the discovery of the New World through the early nineteenth century, studied against its intellectual, historical, and social background.

Change description and add prerequisite to:

440 Early American Literature—3 hours. Representative American literature from the European arrival through the early nineteenth century, studied against its intellectual, historical, and social background. Prerequisite: 240.

Preferred effective date: Spring 2008

441 American Renaissance Literature—3 hours. Representative American literature of the mid-nineteenth century, studied against its intellectual, historical, and social background.

Add prerequisite

441 American Renaissance Literature—3 hours. Representative American literature of the mid-nineteenth century, studied against its intellectual, historical, and social background. Prerequisite: 240.

Preferred effective date: Spring 2008

442 American Realism and Naturalism—3 hours. Representative American literature of the late nineteenth and early twentieth centuries, studied against its intellectual, historical, and social background.

Add prerequisite

442 American Realism and Naturalism—3 hours. Representative American literature of the late nineteenth and early twentieth centuries, studied against its intellectual, historical, and social background.

Prerequisite: 240.

Preferred effective date: Spring 2008

444 Modern American Literature—3 hours. Representative American literature since the early twentieth century, studied against its intellectual, historical, and social background.

Add prerequisite

444 Modern American Literature—3 hours. Representative American literature since the early twentieth century, studied against its intellectual, historical, and social background. Prerequisite: 240.

Preferred effective date: Spring 2008

447 Seminar in American Literature—2-3 hours. Topic changes from term to term; may be repeated for credit when topic is different.

Add prerequisite

447 Seminar in American Literature—2-3 hours. Topic changes from term to term; may be repeated for credit when topic is different. Prerequisite: 240.

Preferred effective date: Spring 2008

448 Forms of American Literature—2-3 hours. The development of major genres of American literature. Offered as 448D, Drama; 448F, Novel; 448P, Poetry. May be repeated for credit when topic is different.

Add prerequisite

448 Forms of American Literature—2-3 hours. The development of major genres of American literature. Offered as 448D, Drama; 448F, Novel; 448P, Poetry. May be repeated for credit when topic is different. Prerequisite: 240.

Preferred effective date: Spring 2008

449 Middle English Literature—3 hours. Representative English literature of the Middle Ages, studied against its intellectual, historical, and social background. Read in Middle English and modern translation.

Add prerequisite

449 Middle English Literature—3 hours. Representative English literature of the Middle Ages, studied against its intellectual, historical, and social background. Read in Middle English and modern translation. Prerequisite: 250.

Preferred effective date: Spring 2008

450 Chaucer—3 hours. The life and writings of Chaucer, including the cultural and literary backgrounds of his art and attention to linguistic problems.

Change description and add prerequisite to:

450 Chaucer—3 hours. The life and writings of Chaucer, including the cultural and literary backgrounds of his art. Read in Middle English and modern translation. Prerequisite: 250.

Preferred effective date: Spring 2008

452 Restoration and Eighteenth Century Literature—3 hours. Representative English literature from the mid-seventeenth century through the late eighteenth century, studied against its intellectual,

historical, and social background.

Change description and add prerequisite to:

452 Restoration and Eighteenth Century Literature—3 hours. Representative British literature from the mid-seventeenth century through the late eighteenth century, studied against its intellectual, historical, and social background. Prerequisite: 250.

Preferred effective date: Spring 2008

453 English Romantic Literature—3 hours. Representative English literature from the late eighteenth century through the mid-nineteenth century, studied against its intellectual, historical, and social background.

Change title, description, and add prerequisite to:

453 British Romantic Literature—3 hours. Representative British literature from the late eighteenth century through the mid-nineteenth century, studied against its intellectual, historical, and social background. Prerequisite: 250.

Preferred effective date: Spring 2008

454 Victorian Literature—3 hours. Representative English literature from the mid-nineteenth century to the twentieth century, studied against its intellectual, historical, and social background.

Change description and add prerequisite to:

454 Victorian Literature—3 hours. Representative British literature from the mid-nineteenth century to the twentieth century, studied against its intellectual, historical, and social background. Prerequisite: 250.

Preferred effective date: Spring 2008

460 Shakespeare—3 hours. Selected comedies, tragedies, and histories; problems of Shakespearean scholarship, interpretation, and criticism.

Add prerequisite

460 Shakespeare—3 hours. Selected comedies, tragedies, and histories; problems of Shakespearean scholarship, interpretation, and criticism.

Preferred effective date: Spring 2008

462 Seminar in English Literature before 1800—3 hours. Topic changes from term to term; may be repeated for credit when topic is different.

Change title and add prerequisite to:

462 Seminar in British Literature before 1800—3 hours. Topic changes from term to term; may be repeated for credit when topic is different. Prerequisite: 250.

Preferred effective date: Spring 2008

463 Seminar in English Literature since 1800—3 hours. Topic changes from term to term; may be repeated for credit when topic is different.

Change title and add prerequisite to:

463 Seminar in British Literature since 1800—3 hours. Topic changes from term to term; may be repeated for credit when topic is different. Prerequisite: 250.

Preferred effective date: Spring 2008

464 English Drama—3 hours. Origins and development of the English drama, with emphasis on the principal dramatists (other than Shakespeare) of the seventeenth and eighteenth centuries.

Change title, description, and add prerequisite to:

464 British Drama—3 hours. Origins and development of British drama, with emphasis on the principal dramatists (other than Shakespeare) of the seventeenth and eighteenth centuries. Prerequisite: 250.

465 The English Novel—3 hours. Origins and development of the English novel, with emphasis on the nineteenth and twentieth centuries.

Change title, description, and add prerequisite to:

465 The British Novel—3 hours. Origins and development of the British novel, with emphasis on the nineteenth and twentieth centuries. Prerequisite: 250.

Preferred effective date: Spring 2008

COLLEGE OF TECHNOLOGY: Electronics and Computer Technology

ECT †220 A.C. Circuits and Design—3 hours. Elementary empirical design and practical laboratory experiences involving D.C. and A.C., magnetism, impedance, tuned circuits, laboratory scopes, bridges, and time measurements. Intense study of the performances of discrete electronic components within a variety of application circuits including filters, rectifiers, power supplies, and regulators. Prerequisite: 165 (May be taken concurrently with 221.)

Change number to:

ECT†167 A.C. Circuits and Design--3 hours. Elementary design and laboratory experiences involving A.C., magnetism, impedance, tuned circuits, bridges, and time measurements. Study of discrete electronic components within a variety of applications including filters, rectifiers, power supplies, and regulators. Prerequisite: 165. † Indicates course has a laboratory component.

Preferred effective date: Fall 2007

COURSE BANKING

COLLEGE OF TECHNOLOGY: Electronics and Computer Technology

ECT †331 Large Scale Integrated and Interface Circuits—3 hours. Analysis of large scale integrated digital circuits. Basic theory and characteristics of MOS, MOS digital inverters, static and dynamic MOS logic, CMOS, charged logic devices, bipolar circuit models, TTL logic, and noise analysis. Design and construction of logic circuits typically used in the interfacing of control devices to

microprocessor based systems. Prerequisite: 232.

Preferred effective date: Fall 2011

ECT †334 Microprocessor Architecture and Organization—3 hours. The architecture and interconnecting functional units of the CPU, ALU, and control units with memory, input/output devices, and communication between subsystems. The basic operation of processor cycle including machine cycle, state transition, and status information. Prerequisite: 232.

Preferred effective date: Fall 2011

ECT †335 Peripheral Control Structures—3 hours. An analysis of the digital logic structure of peripheral control devices and how they interface with microprocessor based systems. Prerequisite: 334.

Preferred effective date: Fall 2011

ECT †435 Advanced Microprocessor Architecture and Organization—3 hours. Architecture, system design, and interfacing theory of advanced microprocessor based systems are presented in this course. Laboratory experiences will be an integral portion of this course. Prerequisite: 335

Preferred effective date: Fall 2011

ECT †436 Data Communications Technology—3 hours. A study of data communications hardware including synchronous/asynchronous communications, SDLC/HDLC protocol controllers, local area network controllers, modems, and ethernet controllers. Laboratory activities include experiences with sync/async communications, interfacing, networking, and LAN. Prerequisites: 232, 324.

Preferred effective date: Fall 2011

PROGRAM REVISIONS

COLLEGE OF TECHNOLOGY: Electronics and Computer Technology

Computer Hardware Technology Major (89 semester hours)

CIP Code: 151291 Major Code: D832

Summary:

The Computer Engineering Technology program will continue with the same fundamental focus as the Computer Hardware Technology program, however, this program will also emphasize networking, data communications, telecommunications, and information technology concepts from an infrastructure perspective that during the past decade has become an integral part of Computer Engineering Technology.

The purpose of the program is to provide quality education in the discipline of computer engineering technology for men and women who have the desire to prepare themselves for a career in this field.

The objective of this program is to provide graduates with the practical and theoretical background based on technological, mathematical, and scientific principles that will prepare them for further education and productive employment at a professional level in a wide range of careers, and to maintain an educational climate through research, service, and professional development.

Students in this program will acquire skills in digital technology, computer engineering technology, design, and analysis.

1. Describe admission requirements, anticipated student clientele, and student financial support.

Prospective students must meet the minimum university requirements for admission.

No prerequisite course work is required.

This program is designed for completion by students who enter the university as freshmen, however, the program is also designed so that it will articulate with 2-year institutions. And the program is designed so that its 3rd and 4th year can be offered via distance-education.

There are no restrictions on enrollment.

2. Describe the proposed curriculum.

Credit Hr. Distribution: See the Computer Engineering Technology Major Curriculum Guide Sheet.

See the Computer Engineering Technology Major 4-year Plan.

New Courses vs. Old Courses: See Side-by-Side Comparison.

Course Sequencing: See 4-year Plan.

Field Experiences: Elective credit as ECT 351.

Describe form of recognition.

Upon graduation student will receive the B.S. in Computer Engineering Technology.

CIP code: same as before

1. Provide a specific statement of all catalogue changes to be made because of this change.

See Old Catalog Copy vs. New Catalog Copy.

This program does not impact other programs. The outside of department requirement remains the same as for the original program (Computer Hardware Technology).

2. List program faculty and administrators.

The Faculty list is the current list as described for the ECT Department in the University Catalog.

3. Describe needed learning resources.

This program will not require new or different resources than the current program.

4. Describe other program strengths.

This program is designed to be compatible with current facets of Computer Engineering Technology, and is also designed with area emphasis that should allow it to adapt to future requirements for continued developments in the discipline. The program is also designed to be articulation/transfer friendly, and study by the Department has been conducted to assure that articulation with 2-year programs within the state, region, or nationally should be able to be developed. The program is designed to produce graduates who will fulfill positions that have been described by the state

government and employment outlook agencies as essential for the future of the state (e.g. networking and systems analysts positions within the state are expected to increase 39% from 2002 to 2012).

5. Describe the planning process which resulted in the development and submission of this proposal.

The planning for this degree began over 2 years ago. The development of the degree is the result of faculty, advisory board, and accreditation efforts to move the degree to a new level that incorporates advanced technology concepts into the older program. In the **Rationale** section, 8 key points are listed that describe the process used to determine the need to make these changes.

6. Student Demand.

Student demand is expected to grow from its present level. This degree is designed to be more articulation friendly, transfer friendly, and be more compatible with matriculation to graduate programs. An informal survey of students in the present, Computer Hardware Technology program, indicates that the majority will change to the new program.

7. Transferability.

The Computer Hardware Technology program was not designed to be compatible with existing programs at 2-year and 4-year institutions, and as programs at 2 and 4-year institutions have matured it has become even less compatible. The Computer Hardware Technology program content needed to be upgraded so that programs at other institutions could be transferred to this one. The Computer Engineering Technology program has been designed to be articulation/transfer friendly from the beginning with other similar 2 and 4- year institutions.

8. Access to graduate and professional programs.

a. This program fulfills a similar mission as the Computer Hardware Technology program. Those who seek to enter graduate programs will be prepared to enter programs such as: Computer Engineering Technology, computer engineering, computer engineering technology, and information technology, and other related engineering programs.

b. This program fulfills a similar mission as the Computer Hardware Technology program. Students seeking employment upon graduation will likely find employment in industries such as: Computer Engineering Technology, electronics technology, software, information technology, data communications, telecommunications, and related engineering professions.

9. Support of the Program.

Support for the program will remain the same as the current University support for the Computer Hardware Technology program.

10. Demand and employment factors.

According to the Occupational Outlook data demand for electronics and Computer Engineering Technology graduates, projected from 2004 – 14, lists engineering technicians, computer, automated teller, and office machine repairers; computer and information systems managers; computer programmers; computer systems design and related services, and telecommunications are listed among the many positions available to individuals that are graduates of Computer Engineering Technology programs. Since it is normal for computer hardware technology graduates to acquire positions in companies titled as engineer, data respective to engineering has been included in this section. According to the Occupational Outlook data demand for electronics and Computer Engineering Technology graduates, projected from 2004 - 14, lists computer software engineers, applications; network systems and data communications analysts; network and computer systems

administrators, and computer and information systems managers as among the top 20 large-growth, high paying occupations that often require a bachelor's or graduate degree. This document also lists a numeric growth in computer and mathematical science growth of 967,000 jobs projected 2004-14, and 315,000 jobs for architecture and engineering. The percent growths are 31% and 12% respectively. A sampling of occupations related to positions acquired by ECT graduates in Indiana show that these occupations continue to show growth in demand and salary. Projections from the above publication for 2000 – 2010 show that this sampling will experience a growth ranging from 2.5 to 10% during this period.

11. Regional, State, and National factors.

The National Association of Industrial Technology (NAIT) is the accrediting agency for the Computer Hardware Technology program.

Since NAIT does not accredit engineering technology programs, the ECT Department will seek accreditation for the Computer Engineering Technology program from the Technology Accrediting Commission of ABET (TAC-ABET). The Computer Hardware Technology program received its last accrediting review in 2004 and is accredited to 2010. This review process indicates that the Computer Hardware Technology program is a viable, productive program, and it is assumed that after reviewing the criteria for TAC-ABET accreditation that the Computer Engineering Technology program will meet the accrediting standards.

The ECT Department Advisory Board has directed and made suggestions to the ECT Department in its deliberations on modifications that have resulted in the development of the Computer Engineering Technology program.

Various in-state 2-year programs have been assessed to determine what type of program would best articulate with those programs, and this assessment has resulted in modifications that are now a part of the Computer Engineering Technology program.

Employment outlook information has been considered in the development of this program.

12. Program implementation and evaluation.

The program will be implemented immediately. Students presently enrolled in the Computer Hardware Technology program will be allowed to complete their degree or change to the Computer Engineering Technology program. Evaluation will consist of the normal accreditation/review process based on the National Association of Industrial Technology or the Technology Accrediting Commission of ABET. This process assesses program quality, appropriateness, demand, market demand, and requires other assessments directly related to the health of a program.

13. Not applicable.

14. Program (student) outcomes assessment.

At present the Computer Hardware Technology program is accredited by the National Association of Industrial Technology (NAIT). This program received its last review in 2004 and is accredited until 2010. The National Association of Industrial Technology provides a set of standards for any program seeking accreditation in technology, one of these standards specifically addresses assessment issues. The Computer Hardware Technology program is currently in-line with the assessment standard.

The Computer Engineering Technology program will seek accreditation from TAC-ABET. The Computer Engineering Technology program will also be required to meet assessment standards under TAC-ABET, and based on similarities to the original Computer Hardware Technology program, the ECT Department believes that program outcomes assessment will continue to be a relevant part of program evaluation.

Student learning

The Computer Hardware Technology program will change to the Computer Engineering Technology program.

The proposed changes represent the culmination of a 2-year study that:

- a. originally began with the mission to review/revise the Computer Hardware Technology program to make it current and to insure that graduates continued to meet the demands of the workplace and higher education,
- b. caused the ECT Department to realize that the Computer Hardware Technology program more closely resembles a Computer Engineering Technology program based on the courses, desired employment and education ideas, mission and goals of the Department, and goals of the program.

The Computer Engineering Technology program will consist of curricular experiences that are application-oriented; with technical content, information, and theory for the design, development, and utilization of digital computer circuitry, microprocessor applications, personal computers, telecommunications, networking systems, and other related technologies.

Changes to the present Computer Hardware Technology program are being incorporated based on a 2-year study by an appointed subcommittee of the ECT Department that:

- a. investigated local, state, regional, and national employment opportunities based on the type of degree offered by this department,
- b. surveyed the entry requirements into related undergraduate and/or master degree programs,
- c. reviewed concerns about the Computer Hardware Technology program as expressed by the ECT Industrial Advisory Board,
- d. reviewed modifications necessary to allow the 3rd and 4th years of this program to be web-based for distance delivery,
- e. reviewed courses presently incorporated by similar computer engineering technology undergraduate programs in other universities,
- d. reviewed the recent (2004) accreditation (NAIT) report for the Computer Hardware Technology program of the ECT Department,
- e. reviewed criteria for future accreditation of the Computer Engineering Technology program under TAC-ABET,
- f. reviewed technologies that have assumed a more dominant role in modern industry, and society in general, than ever before.

To be successful in the rapidly changing and highly competitive field of Computer Engineering

Technology requires that the undergraduate student be appropriately prepared to meet the challenge of the rapid pace of technical change in this field, and to increase his/her chances for career advancement it is essential for our students to become "life long" learners. To remain successful they will have to have the opportunity to upgrade their knowledge and learn new skills that relate to the changes in technology. This requires that the student receive a strong foundational knowledge in the basic principles of their field, as well as the principles related to modern Computer Engineering Technology. The proposed changes that produced the Computer Engineering Technology program from the Computer Hardware Technology program should enhance the student's understanding of Computer Engineering Technology and provide him/her with the opportunity to continue his/her employment and educational endeavors in the future. These changes are being proposed based on a 2-year study of the items listed in the preceding material.

According to the Occupational Outlook data, demand for electronics and Computer Engineering Technology graduates, projected from 2004 – 14, lists engineering technicians, computer, automated teller, and office machine repairers; computer and information systems managers; computer programmers; computer systems design and related services, and telecommunications as among the many positions available to individuals possessing an graduates of Computer Engineering Technology programs. Since it is normal for computer hardware technology graduates to acquire positions in companies titled as engineer, data respective to engineering has been included in this section. According to the Occupational Outlook data demand for electronics and Computer Engineering Technology graduates, projected from 2004 - 14, lists computer software engineers, applications; network systems and data communications analysts; network and computer systems administrators, and computer and information systems managers as among the top 20 large-growth, high paying occupations that often require a bachelor's or graduate degree. This document also lists a numeric growth in computer and mathematical science growth of 967,000 jobs projected 2004-14, and 315,000 jobs for architecture and engineering. The percent growths are 31% and 12% respectively. A sampling of occupations related to positions acquired by ECT graduates in Indiana show that these occupations continue to show growth in demand and salary. Projections from the above publication for 2000 – 2010 show that this sampling will experience a growth ranging from 2.5 to 10% during this period.

The ECT Department has determined that:

- A. The Computer Engineering Technology program is consistent with the requirements of the accrediting agency TAC-ABET based upon a review of the criteria and standards for this type of program.
- B. The Computer Engineering Technology program is consistent with recent ECT alumni comments/suggestions contained in the (2004) Alumni Survey for the College of Technology.
- C. The Computer Engineering Technology program is consistent with the ECT Department mission, purpose, and goals as stated in the (2004) accreditation review documentation. As part of this mission, the Computer Engineering Technology program changes will help local, state, and regional industries by providing prospective employees that have the necessary prerequisites for graduates in this discipline.

- D. The Computer Engineering Technology program is consistent with related programs at other institutions as reviewed by the ECT Computer Engineering Technology subcommittee and presented to the ECT Department.
- E. The Computer Engineering Technology program is designed to allow 2-year institution articulation, reviews of institutions for potential articulation include Ivy Tech, Vincennes Univ. and Eastern Illinois Community Colleges.
- F. The Computer Engineering Technology program is designed to allow 3rd and 4th year web-based distance delivery. The ECT Computer Engineering Technology subcommittee reviewed other institution offerings and developed new courses that would allow those courses to be web-based.

Proposed Catalog Copy:

Computer Engineering Technology Major (74 semester hours)

CIP Code: 151291 Major Code: _____

Required courses:

Electronics and Computer Technology courses (45 hours): 130--2 hrs.; †165--3 hrs.; †167--3 hrs.; †168--3 hrs.; 231--3 hrs.; †232--3 hrs.; 281--3 hrs.; †301--3 hrs.; †303--3 hrs.; †306--3 hrs.; 308--3 hrs.; 401--3 hr.; †403--3 hrs.; †406--3 hrs.; 430--1 hr.; †437—3 hrs.

Management (6 hours from courses such as): Industrial and Mechanical Technology 404 – 3 hrs.; 405 – 3 hrs.; Manufacturing and Construction Technology 471--3 hrs.; †478--3 hrs.; 492--3 hrs.

Mathematics /Computer Science and Physical Science requirements (17 hours): courses in Physics, Chemistry, Life Sciences, or Geology--8 hrs.; Mathematics 115--3 hrs.; 301--3 hrs.; Computer Science 256--3 hrs. (or higher level structured language.)

Technical Electives: 6 hours.

† Denotes a course having a laboratory component requiring additional contact hours.

Preferred effective term: Fall 2007

COLLEGE OF TECHNOLOGY: Electronics and Computer Technology

Computer Hardware Technology Minor (24 semester hours)

CIP Code: 151291 Major Code: D832

Summary

Title Change: Change name from **Computer Hardware Technology Minor** to the **Computer Engineering Technology Minor**.

Objectives/Purpose/Clientele to be served by the Program: Computer Engineering Technology focuses on the design, analysis and application of computers and on their applications as components of systems. Emphasis will be on a broad computer engineering technology base that includes the areas of networking, data communications, telecommunications, and information technology. The changes to this

program reflect the need for a minor that has a program name used by other institutions and is recognizable to industry, and fulfill the needs of industries associated with this technology. Students from the Electronics Technology program, programs in Mathematics and Computer Science, and other similar programs at this institution should find this minor as an opportunity to enhance their understanding of this field of study. Due to a decrease in the electronics technology course requirements from the older Computer Hardware Technology minor, students from a wider range of disciplines should find this minor attractive. Students articulating from other institutions with similar backgrounds should be able to acquire this minor and use it to enhance their ability to gain employment upon graduation.

Credit Hours/Miscellaneous: The overall number of credit hours will decrease from the present 24 semester hours to 18 semester hours.

- A. Present # of hours in Computer Hardware Technology Minor -- 24 Future # of hours in Computer Engineering Technology Minor -- 18
- B. Careers include: computer engineering technology, networking and data communications, computer engineering, hardware/software system design, maintenance, application-oriented engineering positions, and various data/software driven infrastructure-based positions.

Proposed Catalog Copy:

Computer Engineering Technology Minor (18 semester hours)

CIP Code: 151291 Major Code: _____

Required Courses:

Electronics and Computer Technology (12 hours): †165 -- 3 hrs.; 168 – 3 hrs.; 231 – 3 hrs.; †232 – 3 hrs.; †303 or †403 3 hrs.

Computer Science (3 hours): 256 – 3 hrs. or any higher level structured language.

†Denotes a course having a laboratory component requiring additional contact hours.
Preferred effective term: Fall 2007

GRADUATE PROPOSALS

COLLEGE OF ARTS AND SCIENCES: Family and Consumer Sciences

Master of Science: Family and Consumer Sciences with Specialization in Dietetics (32 semester hours)

CIP Code: 190101 Major Code: 1595

Summary:

It is proposed that entrance requirements for the Coordinated Program in Dietetics be changed from a 2.5 overall GPA to a 2.7 overall GPA OR a 3.0 GPA on the last 32 hours of work completed.

Student Learning.

Successful program completion and successful first time passage on the national dietetics registration exam have been considered. We believe that this change in admission requirements will improve both these measures and is consistent with the School of Graduate Studies Admissions Policies.

Proposed Catalog Copy:

Master of Science: Family and Consumer Sciences with Specialization in Dietetics (32 semester hours)

CIP Code: 190101 Major Code: _____

Students selecting the food and nutrition option and wishing to qualify for registry eligibility may apply for admission to the Coordinated Program in Dietetics. This program is accredited by the Commission on Accreditation/Approval for Dietetics Education (CADE) of the American Dietetic Association. Included within the food and nutrition courses are 900 clock hours of preprofessional practice experience. All courses with clinical components must be taken at the undergraduate level since experiences are entry level. Upon completion of this graduate option, a student is awarded a M.S. degree. The graduate is eligible for membership in the American Dietetic Association and to take the national examination to earn the credential of registered dietitian (RD).

During the spring semester each year, students may apply for admission to the Coordinated Program in Dietetics. The program is limited to 12 students per class. A minimum undergraduate GPA of 2.7 **or** minimum grade point average of 3.0 on the last 32 hours of course work is required for entry into the program. Graduate applicants will be interviewed and evaluated along with undergraduates being considered for the program. Complete entrance requirements and applications may be obtained from the director of the program, or are available on the Web site. Students are required to submit a written application, transcripts, two letters of recommendation, and participate in a personal interview. Students who apply to the Coordinated Program but are not admitted may still complete the M.S. degree with an emphasis in food and nutrition.

A student entering the program without undergraduate deficiencies should be able to complete the M.S. and preprofessional practice in two calendar years. If students do not have the appropriate background they will be required to complete the following undergraduate deficiencies (or their equivalents) in order to meet American Dietetics Association Registration eligibility requirements:
Preferred effective term: Fall 2007

UNDERGRADUATE APPROVALS

COURSE REVISIONS

COLLEGE OF ARTS AND SCIENCES: English

ENG 240 Major American Authors—3 hours. A critical study of major American writers from the beginnings to the present.

Change title and description to:

ENG 240 American Literature Survey—3 hours. A foundational survey of American literature from Colonial to contemporary times.

Preferred effective term: Spring 2008

ENG 250 Major English Authors—3 hours. A critical study of major British writers from the beginnings to the present.

Change title and description to:

ENG 250 British Literature Survey—3 hours. A foundational survey of British literature from Medieval to contemporary times.

Preferred effective term: Spring 2008

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

FREN 394 Studies in French—1-4 hours. Studies in French language, literature, or culture with topics changing from semester to semester according to the needs and interests of students.

Change description to:

FREN 394 Studies in French—1-4 hours. Studies in French language, literature, or culture with topics changing from semester to semester according to the needs and interests of students. This course is conducted in English.

Preferred effective term: Fall 2007

FREN 495 Undergraduate Studies in French—1-3 hours. Studies in French language, literature, or culture with topics changing from semester to semester according to the needs and interests of the students.

Change description to:

FREN 495 Undergraduate Studies in French--1-3 hours. Language, literature, or culture with topics changing from semester to semester according to the needs and interests of the students. May be repeated for credit under different topics.

Preferred effective term: Fall 2007

GERM 308 Weimar and Fascism in German Culture—3 hours. Analysis of the principal cultural developments of the Weimar period and the rise of German Fascism (in English). Does not count for credit toward the major for Languages, Literatures, and Linguistics students under the German option. General Education Credits [*GE2000: Multicultural Studies-International Cultures*]

Change description to:

GERM 308 Weimar and Fascism in German Culture—3 hours. Analysis of the principal cultural developments of the Weimar period and the rise of German Fascism (in English). Does not count for credit toward the major for Languages, Literatures, and Linguistics students under the German option. This course is conducted in English. General Education Credits [*GE2000: Multicultural Studies-International Cultures*]

Preferred effective term: Fall 2007

GERM 394 Studies in German—1-4 hours. Studies in German language, literature, or culture with topics changing from semester to semester according to the needs and interests of students.

Change description to:

GERM 394 Studies in German—1-4 hours. Studies in German language, literature, or culture with topics changing from semester to semester according to the needs and interests of students. This course is conducted in English.

Preferred effective term: Fall 2007

GERM 495 Undergraduate Studies in German—1-3 hours. Studies in German language, literature, or culture with topics changing from semester to semester according to the needs and interests of the students.

Change description to:

GERM 495 Undergraduate Studies in German—1-3 hours. Language, literature, or culture with topics changing from semester to semester according to the needs and interests of the students. May be repeated for credit under different topics.

Preferred effective term: Fall 2007

ITAL 394 Studies in Italian—1-4 hours. Studies in Italian language, literature, or culture with topics changing from semester to semester according to the interests and needs of the students.

Change description to:

ITAL 394 Studies in Italian—1-4 hours. Studies in Italian language, literature, or culture with topics changing from semester to semester according to the interests and needs of the students. This course is conducted in English.

Preferred effective term: Fall 2007

LAT 215 Classical Mythology—3 hours. Introduction to the mythology of Greece and Rome. General Education Credits [*GE2000: Literary, Artistic, and Philosophical Studies-Elective*]

Change description to:

LAT 215 Classical Mythology—3 hours. Introduction to the mythology of Greece and Rome. This course is conducted in English. General Education Credits [*GE2000: Literary, Artistic, and Philosophical Studies-Elective*]

Preferred effective term: Fall 2007

LAT 216 The Latin Element in English—3 hours. Introduction of Latin words into English; Latin and Greek prefixes, suffixes, roots, and stems, with attention to scientific, medical, and legal terms.

Change description to:

LAT 216 The Latin Element in English—3 hours. Introduction of Latin words into English; Latin and Greek prefixes, suffixes, roots, and stems, with attention to scientific, medical, and legal terms. This course is conducted in English.

Preferred effective term: Fall 2007

LAT 311 Introduction to Roman Culture—3 hours. Development and influence in Roman culture and civilization, law and language, art and technology upon Western life and thought.

Change description to:

LAT 311 Introduction to Roman Culture—3 hours. Development and influence in Roman culture and civilization, law and language, art and technology upon Western life and thought. This course is conducted in English.

Preferred effective term: Fall 2007

LAT 315 Survey of Greek Literature in Translation—3 hours. A study of ancient Greek literature from Homer through the Hellenistic Age.

Change description to:

LAT 315 Survey of Greek Literature in Translation—3 hours. A study of ancient Greek literature from Homer through the Hellenistic Age. This course is conducted in English.

Preferred effective term: Fall 2007

LAT 316 Survey of Latin Literature in Translation—3 hours. The major works of Latin literature will be studied in a historical perspective. General Education Credits [*GE2000: Literary, Artistic, and Philosophical Studies-Elective*]

Change description to:

LAT 316 Survey of Latin Literature in Translation—3 hours. The major works of Latin literature will be studied in a historical perspective. This course is conducted in English. General Education Credits [*GE2000: Literary, Artistic, and Philosophical Studies-Elective*]

Preferred effective term: Fall 2007

LAT 394 Studies in Latin and Greek—1-4 hours. Studies in Latin or Greek language, literature, or culture with topics changing from semester to semester according to the needs and interests of students.

Change description to:

LAT 394 Studies in Latin and Greek—1-4 hours. Studies in Latin or Greek language, literature, or culture with topics changing from semester to semester according to the needs and interests of students. This course is conducted in English.

Preferred effective term: Fall 2007

LAT 402 Classical Myths in Ancient and Modern Literature—3 hours. Mythology in the literature, religion, and philosophy of the ancient period. The endurance of mythological themes into the present are also examined.

Change description to:

LAT 402 Classical Myths in Ancient and Modern Literature—3 hours. Mythology in the literature, religion, and philosophy of the ancient period. The endurance of mythological themes into the present are also examined. This course is conducted in English.

Preferred effective term: Fall 2007

LAT 460 Humanistic Studies in the Classical World—3 hours. Literature, philosophy, religion, and the arts in the cultural synthesis of the Classical world. In different years the seminar may concentrate on various periods of Greek or Roman cultures.

Change description to:

LAT 460 Humanistic Studies in the Classical World—3 hours. Literature, philosophy, religion, and the arts in the cultural synthesis of the Classical world. In different years the seminar may concentrate on various periods of Greek or Roman cultures. This course is conducted in English.

Preferred effective term: Fall 2007

RUSS 394 Studies in Russian—1-4 hours. Studies in Russian language, literature, or culture with topics changing from semester to semester according to the needs and interests of students.

Change description to:

RUSS 394 Studies in Russian—1-4 hours. Studies in Russian language, literature, or culture with topics changing from semester to semester according to the needs and interests of students. This course is conducted in English.

Preferred effective term: Fall 2007

SPAN 394 Studies in Spanish—1-4 hours. Studies in Spanish language, literature, or culture with

topics changing from semester to semester according to the needs and interests of students.

Change description to:

SPAN 394 Studies in Spanish—1-4 hours. Studies in Spanish language, literature, or culture with topics changing from semester to semester according to the needs and interests of students. This course is conducted in English.

Preferred effective term: Fall 2007

SPAN 495 Undergraduate Studies in Spanish—1—3 hours. Studies in Spanish language, literature, or culture with topics changing from semester to semester according to the needs and interests of students.

Change description to:

SPAN 495 Undergraduate Studies in Spanish—1—3 hrs. Language, literature, or culture with topics changing from semester to semester according to the needs and interests of the students. This course may be repeated for credit under different topics.

Preferred effective term: Fall 2007

COURSE REACTIVATION

COLLEGE OF ARTS AND SCIENCES: Political Science

477 The Middle East in World Affairs—3 hours. A study of the relationship of the countries of the Middle East with each other and with the rest of the world, mainly during the post-World War II period.

Preferred effective term: Fall 2007

PROGRAM REVISIONS

COLLEGE OF ARTS AND SCIENCES: English

Creative Writing Minor (18 semester hours)

CIP Code: 230101 Minor Code: 1027

Summary:

Add two courses to the list of required writing courses choices.

Proposed Catalog Copy:

Creative Writing Minor (18 semester hours)

CIP Code: 230101 Minor Code: _____

Required techniques course: 329--3 hrs.

Required writing courses: 15 hours chosen from the following: 219--3 hrs.; 220--3 hrs.; 221--3

hrs.; 227--3 hrs.; 324--3 hrs.; 325--3-6 hrs.; 326--3-6 hrs.; 327--3-6 hrs.; 424--3-12 hrs.; Theater
450--3-6 hrs.

Preferred effective date: Fall 2007