

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

6-12

DEPARTMENT Engineering Technology EFFECTIVE SESSION Spring 2012

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

- | | |
|--|---|
| <input type="checkbox"/> 1. New course with supporting documents | <input type="checkbox"/> 7. Change in course attributes (department head signature only) |
| <input checked="" type="checkbox"/> 2. Add existing course offered at another campus | <input type="checkbox"/> 8. Change in instructional hours |
| <input type="checkbox"/> 3. Expiration of a course | <input type="checkbox"/> 9. Change in course description |
| <input type="checkbox"/> 4. Change in course number | <input type="checkbox"/> 10. Change in course requisites |
| <input type="checkbox"/> 5. Change in course title | <input type="checkbox"/> 11. Change in semesters offered (department head signature only) |
| <input type="checkbox"/> 6. Change in course credit/type | <input type="checkbox"/> 12. Transfer from one department to another |

PROPOSED: Subject Abbreviation <input type="text"/>	EXISTING: Subject Abbreviation <u>ECE</u>	TERMS OFFERED Check All That Apply: <input type="checkbox"/> Summer <input checked="" type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring
Course Number <input type="text"/>	Course Number <u>26400</u>	
Long Title <u>Advanced C Programming</u>		CAMPUS(ES) INVOLVED <input type="checkbox"/> Calumet <input checked="" type="checkbox"/> N. Central <input type="checkbox"/> Cont Ed <input type="checkbox"/> Tech Statewide <input type="checkbox"/> Ft. Wayne <input checked="" type="checkbox"/> W. Lafayette <input checked="" type="checkbox"/> Indianapolis
Short Title <input type="text"/>		

Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

CREDIT TYPE	COURSE ATTRIBUTES: Check All That Apply
1. Fixed Credit: Cr. Hrs. <u>2</u>	1. Pass/Not Pass Only <input type="checkbox"/>
2. Variable Credit Range: Minimum Cr. Hrs <input type="text"/> (Check One) To <input type="checkbox"/> Or <input type="checkbox"/> Maximum Cr. Hrs <input type="text"/>	2. Satisfactory/Unsatisfactory Only <input type="checkbox"/>
3. Equivalent Credit: Yes <input type="checkbox"/> No <input type="checkbox"/>	3. Repeatable <input type="checkbox"/>
	4. Credit by Examination <input type="checkbox"/>
	5. Fees <input type="checkbox"/> Coop <input type="checkbox"/> Lab <input type="checkbox"/> Rate Request <input type="checkbox"/>
	6. Registration Approval Type <input type="checkbox"/>
	7. Variable Title <input type="checkbox"/>
	8. Honors <input type="checkbox"/>
	9. Full Time Privilege <input type="checkbox"/>
	10. Off Campus Experience <input type="checkbox"/>

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	50/100	2/1	16	
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

OFFICE OF THE REGISTRAR
 RECEIVED
 2011 SEP 20 AM 9:45
 Cross-Listed Courses

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):
 Class 2, Cr 2. Prerequisites: ENGR 18100 or ENGR 195E
 Continuation of a first programming course. Topics include files, structures, pointers, and the proper use of dynamic data structures.

COURSE LEARNING OUTCOMES

Calumet Department Head _____ Date _____	Calumet School Dean _____ Date _____
Fort Wayne Department Head _____ Date _____	Fort Wayne School Dean _____ Date _____
Indianapolis Department Head _____ Date _____	Indianapolis School Dean _____ Date _____
North Central Faculty Senate Chair _____ Date <u>9/27/11</u>	Vice Chancellor for Academic Affairs <u>Kumara Jayaraj</u> Date <u>9/27/11</u>
West Lafayette Department Head _____ Date _____	West Lafayette College/School Dean _____ Date _____

West Lafayette Registrar Sandra Schaffer Date 10/5/11

OFFICE OF THE REGISTRAR

CS
10/3/11

Purdue North Central Curriculum Document

Submission Date: (Date sent to College Curr Comm)	Nov 18, 2008	Document No: (Leave blank)	08-C-11
Proposed Effective Date: (Semester, Year)	Fall 2009	Submitting Dept: (Name of dept/pgm)	Engineering
Reviewed by College: (Date reviewed by College CC)	Jan 9, 2009	Contact Person: (Name & Title)	Larryl Matthews, Dean, College of Engineering & Technology
Name(s) of Library Staff Consulted: (N/A if not required.)	N/A	Will New Library Resources Used?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <small>Double-click to check Yes / No.</small>
Approval by Curriculum Committee: (Leave blank)	Jan 30, 2009	Form 40 Needed? (Double-click one box.)	<input checked="" type="checkbox"/> Yes <small>New courses or <u>any</u> course change, check YES.</small>
Approval by Faculty Senate: (Leave blank)	March 20, 2009	Send Form 40 to PNC Registrar <u>after</u> Senate approval of document.	<input type="checkbox"/> No <small>For <u>all other</u> curriculum matters, check NO.</small>

Subject. (Brief description of proposed change, addition or deletion.)

New Bachelor of Science degree in Electrical & Computer Engineering (BS ECE).

Justification. (Briefly list main reasons for proposed change, addition or deletion.)

The freshman engineering program has existed at PNC for many years. Since being approved two years ago, the BS Mechanical Engineering degree, with a Minor in Electrical Engineering, has experienced strong enrollment. Currently, engineering students seeking to major in Electrical & Computer Engineering (ECE) must transfer to West Lafayette or Calumet. The proposed BS ECE Degree will retain many students who would otherwise transfer, thus increasing our enrollment and helping the students to lower the cost of their education.

Use the **Current** and **Proposed** spaces below for course changes only. Otherwise, mark "N/A".

Current: (Course changes: present catalog info.)

N/A. (New program.)

Proposed: (Course changes: new catalog information.)

See following pages for sample plan of study and list of West Lafayette courses that will be brought to PNC.

Course Objectives. (For new courses only. List main learning objectives. If lengthy, attach as separate page.)

- Students successfully completing this program will:
- (1) Have a well rounded, quality undergraduate engineering education.
 - (2) Be able to apply applications of modern sciences and technologies.
 - (3) Provide engineering or internship services to local industry.
 - (4) Have been involved in undergraduate research activities.
 - (5) Have been involved in undergraduate engineering competitions and participate in local engineering societies.

Impact on Students. (State "N/A" if proposal will not greatly affect students.)

Sunstantial savings, compared to the cost of transferring to West Lafayette or commuting to Calumet.

Impact on University Resources. (State "N/A" if proposal will not require new resources, faculty or funds.)

Program will utilize the existing ECET laboratories and current full- and part-time engineering faculty.

Impact on other Academic Units. (State "N/A" if proposal will not affect other units.)

This new degree will help increase enrollment in several areas: Math, Physics, Chemistry and Humanities and Social Sciences.

Sample Plan of Study for BS-ECE Degree.

SEMESTER 1	CR	SEMESTER 2	CR
MA 167 Plane Analytic Geometry & Calculus I	5	MA 169 Plane Analytic Geometry & Calculus II	5
CHM 115 General Chemistry	4	CHM 116 General Chemistry	4
ENGL 101 English Composition I	3	PHYS 152 Mechanics	4
ENGR 171 Engineering FundamentalsI	5	ENGR 181 Engineering FundamentalsII	5
CREDIT HOURS	17	CREDIT HOURS	18
SEMESTER 3	CR	SEMESTER 4	CR
ECE 201 Linear Circuit Analysis I	3	ECE 202 Linear Circuit Analysis II	3
ECE 207 Electronic Measurement Techniques	1	ECE 255 Intro. to Electronics Analysis & Design	3
PHYS 261 Electricity and Optics	4	ECE 208 Electronic Design & Dev. Lab	1
MA 261 Multivariate Calculus	4	MA 262 Linear Algebra & Diff. Eqs.	4
ME 270 Basic Mechanics I	3	ECE 270 Intro. to Digital Sys. Design	4
Humanities/Social Science Elective	3	Humanities/Social Science Elective	3
CREDIT HOURS	18	CREDIT HOURS	18
SEMESTER 5	CR	SEMESTER 6	CR
ECE 264 Advanced C programming	2	ECE 311 Electric and Magnetic Fields	3
ECE 321 Electromech. Mot. Devices	3	ECE 382 Feedback System Analysis	3
ECE 323 Electro. & Motion Dev.Lab.	1	ECE 308 Systems Simulation and Control Lab	1
ECE 301 Signals and Systems	3	ECE 362 Microprocessor Systems & Interfacing	3
ECE 302 Prob. Methods in Elect. Engineering	3	Humanities/Social Science Elective	3
Humanities/Social Science Elective	3		
CREDIT HOURS	15	CREDIT HOURS	13
SEMESTER 7	C	SEMESTER 8	CR
ECE 402 EE Design Projects	3	ENGR 461 Engineering Design Exp.	3
ECE 440 Transmission of Information	4	ECE 438 Digital Signal Processing	4
ENGR Elective	3	ENGR Elective	3
Humanities/Social Science Elective	3	Humanities/Social Science Elective	3
CREDIT HOURS	13	CREDIT HOURS	13

TOTAL CREDIT HOURS FOR DEGREE: 124

Courses to Be Brought from West Lafayette.

ECE 208 Electronic Devices and Design Laboratory

Lab. 3, Cr. 1. Prerequisite: ECE 207. Corequisites: ECE 255.

Laboratory experiments in the measurement of electronic device characteristics. Design of biasing networks, small signal amplifiers and switching circuits.

✓ **ECE 255 Electronic Circuit analysis and Design**

Class 3, Cr 3. Prerequisites: ECE 201.

Diode, bipolar transistor and FET circuit models for the design and analysis of electronic circuits. Single and multistage analysis and design; introduction to digital circuits. Computer aided design calculations, amplifier operating point design, and frequency response of single and multistage amplifiers. High frequency and low frequency designs are emphasized.

✓ **ECE 264 Advanced C Programming**

Class 2, Cr. 2. Prerequisite: ENGR 181 or ENGR 195E.

Continuation of a first programming course. Topics include files, structures, pointers, and the proper use of dynamic data structures.

✓ **ECE 270 Introduction to Digital System Design**

Class 3, Lab. 3, Cr. 4. Prerequisites: ECE 201 and ECE 207.

An introduction to digital system design, with an emphasis on practical design techniques and circuit implementation.

✓ **ECE 301 Signals and Systems**

Class 3, Cr. 3. Prerequisite: ECE 202..

Classification, analysis and design of systems in both the time- and frequency-domains. Continuous-time linear systems: Fourier Series, Fourier Transform, bilateral Laplace Transform. Discrete-time linear systems: difference equations, Discrete-Time Fourier Transform, bilateral z-Transform. Sampling, quantization, and discrete-time processing of continuous-time signals. Discrete-time nonlinear systems: median-type filters, threshold decomposition. System design examples such as the compact disc player and AM radio.

✓ **ECE 302 Probabilistic Methods in Electrical and Computer Engineering**

Class 3, Cr. 3. Prerequisite: MA 262.. Corequisite: ECE 301.

An introductory treatment of probability theory including distribution and density functions, moments and random variables. Applications of normal and exponential distributions. Estimation of means, variances. Correlation and spectral density functions. Random processes and response of linear systems to random inputs.

ECE 308 Systems Simulation and Control Laboratory

Class 3, Cr. 1. Prerequisite: ECE 207. Corequisite: ECE 382

Instruction and laboratory exercises in the solution of differential equations that arise in the modeling of physical systems. Instruction in the principles of operation and design of linear control systems.

✓ **ECE 311 Electric and Magnetic Fields**

Class 3, Cr. 3. Prerequisites: ECE 201, PHYS 261 & MA 262.

Continued study of vector calculus, electrostatics, magnetostatics, and Maxwell's Equations. Introduction to electromagnetic waves, transmission lines, and radiation from antennas.

Courses to Be Brought from West Lafayette (cont.).

ECE 321 Electromechanical Motion Devices

Class 3, Cr. 3. Prerequisite: ECE 202 or ECE 255.

The general theory of electromechanical motion devices relating electric variables and electromagnetic forces. The basic concepts and operational behavior of dc, induction, brushless dc, and stepper motors used in control applications are presented.

ECE 323 Electromechanical Motion Devices and Systems Laboratory

Lab. 3, Cr. 1. Corequisite: ECE 321.

Experiments closely coordinated with ECE 321 involving measurement of fundamental parameters of various electromechanical devices using modern instrumentation techniques. Computer simulation is used to predict steady-state and dynamic operating characteristics. Comparison of predicted and measured performance is emphasized.

✓ **ECE 362 Microprocessor Systems and Interfacing**

Class: 3, Cr. Lab. 3, Cr. 4. Prerequisites: ECE 264 & ECE 270.

An introduction to microcontroller instruction sets, assembly language programming, microcontroller interfacing, microcontroller peripherals, and embedded system design.

ECE 382 Feedback System Analysis and Design

Class 3, Cr. 3. Prerequisite: ECE 202. Corequisite: ECE 308.

In this course classical concepts of feedback system analysis and associated compensation techniques are presented. In particular, the root locus, Bode diagram and Nyquist plot are used as determinants of stability.

ECE 402 EE Design Projects

Class 1, Lab. 6, Cr. 3. Prerequisite: Senior standing.

Lecture sessions provide the student with background information on the design and management of projects. Formal lectures cover, for example, design for manufacturability, design for quality, test and evaluation, reliability and ethics, patents and copyrights, plus case studies. During the laboratory sessions the students work in teams on a challenging open-ended electrical engineering project that draws on previous course work. Projects routinely involve standard design facets (such as consideration of alternative solutions, feasibility considerations and detailed system descriptions) and include a number of realistic constraints (such as cost, safety, reliability, and aesthetics).

✓ **ECE 438 Digital Signal Processing with Applications**

Class 3, Lab. 3, Cr. 4. Prerequisites: ECE 301 & ECE 302.

The course is presented in three units. Foundations: the review of continuous-time and discrete-time signals, and spectral analysis; design of finite impulse response and infinite impulse response digital filters; processing of random signals. Speech processing: vocal tract models and characteristics of the speech waveform; short-time spectral analysis and synthesis; linear predictive coding. Image processing: two dimensional signals, systems, and spectral analysis; image enhancement; image coding; image reconstruction. The laboratory experiments are closely coordinated with each unit. Throughout the course, the integration of digital signal processing concepts in a design environment is emphasized.

✓ **ECE 440 Transmission of Information**

Class 3, Lab: 3, Cr.: 4. Prerequisites: ECE 301 & ECE 302.

Analysis and design of Analog and Digital Communication Systems. Emphasis on engineering applications of theory to communication system design. The laboratory introduces the use of advanced engineering workstations in the design and testing of communication systems.

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
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(10000-40000 LEVEL)



EFD 6-12

(201310)

DEPARTMENT School of Electrical and Computer Engineering (EFD 6-12) EFFECTIVE SESSION Fall 2012

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

- | | |
|---|---|
| <input type="checkbox"/> 1. New course with supporting documents | <input type="checkbox"/> 7. Change in course attributes (department head signature only) |
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| <input type="checkbox"/> 3. Expiration of a course | <input type="checkbox"/> 9. Change in course description |
| <input type="checkbox"/> 4. Change in course number | <input type="checkbox"/> 10. Change in course requisites |
| <input type="checkbox"/> 5. Change in course title | <input type="checkbox"/> 11. Change in semesters offered (department head signature only) |
| <input checked="" type="checkbox"/> 6. Change in course credit/type | <input type="checkbox"/> 12. Transfer from one department to another |

PROPOSED:

EXISTING:

TERMS OFFERED

Check All That Apply:

Subject Abbreviation _____ Subject Abbreviation ECE
Course Number _____ Course Number 28400
Long Title Advanced C Programming
Short Title Advanced C Programming

Summer Fall Spring

CAMPUS(ES) INVOLVED

Calumet N. Central
 Cont Ed Tech Statewide
 Ft. Wayne W. Lafayette
 Indianapolis

Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. 3
2. Variable Credit Range:
Minimum Cr. Hrs. _____
(Check One) To Or
Maximum Cr. Hrs. _____
3. Equivalent Credit: Yes No

COURSE ATTRIBUTES: Check All That Apply

1. Pass/Not Pass Only
2. Satisfactory/Unsatisfactory Only
3. Repeatable
Maximum Repeatable Credit: _____
4. Credit by Examination
5. Special Fees
6. Registration Approval Type
Department Instructor
7. Variable Title
8. Honors
9. Full Time Privilege
10. Off Campus Experience

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	50	3	16	100
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses
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 OCT 26 AM 10:15
 OFFICE OF THE REGISTRAR

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

Prerequisite: CS 15900 Minimum Grade of C-
Restrictions: Must be enrolled in one of the following Colleges: School of Electrical and Computer Engineering, School of Biomedical Engineering

***COURSE LEARNING OUTCOMES:**

See attachment.

Calumet Department Head _____ Date _____	Calumet School Dean _____ Date _____
Fort Wayne Department Head _____ Date _____	Fort Wayne School Dean _____ Date _____
Indianapolis Department Head _____ Date _____	Indianapolis School Dean _____ Date _____
North Central Department Head _____ Date _____	North Central Chancellor _____ Date _____
West Lafayette Department Head <u>[Signature]</u> <u>8/31/11</u> /Date	West Lafayette College/School Dean <u>[Signature]</u> <u>10/11/11</u> /Date
	West Lafayette Registrar <u>[Signature]</u> <u>2/16/12</u> /Date

OFFICE OF THE REGISTRAR

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2/14/12

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

Office of the Registrar
 FORM 40 REV. 11/09

EFD 6-12
 (201310)

DEPARTMENT School of Electrical and Computer Engineering (EFD 6-12) EFFECTIVE SESSION Fall 2012

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

<input type="checkbox"/> 1. New course with supporting documents	<input type="checkbox"/> 7. Change in course attributes (department head signature only)
<input type="checkbox"/> 2. Add existing course offered at another campus	<input type="checkbox"/> 8. Change in instructional hours
<input type="checkbox"/> 3. Expiration of a course	<input type="checkbox"/> 9. Change in course description
<input type="checkbox"/> 4. Change in course number	<input type="checkbox"/> 10. Change in course requisites
<input type="checkbox"/> 5. Change in course title	<input type="checkbox"/> 11. Change in semesters offered (department head signature only)
<input checked="" type="checkbox"/> 6. Change in course credit/type	<input type="checkbox"/> 12. Transfer from one department to another

PROPOSED:	EXISTING:	TERMS OFFERED Check All That Apply:
Subject Abbreviation _____	Subject Abbreviation <u>ECE</u>	<input type="checkbox"/> Summer <input checked="" type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring
Course Number _____	Course Number <u>26400</u>	CAMPUS(ES) INVOLVED
Long Title <u>Advanced C Programming</u>		<input type="checkbox"/> Calumet <input type="checkbox"/> N. Central <input type="checkbox"/> Cont Ed <input type="checkbox"/> Tech Statewide <input type="checkbox"/> Ft. Wayne <input checked="" type="checkbox"/> W. Lafayette <input type="checkbox"/> Indianapolis
Short Title <u>Advanced C Programming</u>		
Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)		

CREDIT TYPE	COURSE ATTRIBUTES: Check All That Apply
1. Fixed Credit: Cr. Hrs. <u>3</u>	1. Pass/Not Pass Only <input type="checkbox"/>
2. Variable Credit Range: Minimum Cr. Hrs. _____ (Check One) To _____ Or _____ Maximum Cr. Hrs. _____	2. Satisfactory/Unsatisfactory Only <input type="checkbox"/>
3. Equivalent Credit: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	3. Repeatable <input type="checkbox"/>
	Maximum Repeatable Credit: _____
	4. Credit by Examination <input type="checkbox"/>
	5. Special Fees <input type="checkbox"/>
	6. Registration Approval Type Department <input checked="" type="checkbox"/> Instructor <input type="checkbox"/>
	7. Variable Title <input type="checkbox"/>
	8. Honors <input type="checkbox"/>
	9. Full Time Privilege <input type="checkbox"/>
	10. Off Campus Experience <input type="checkbox"/>

Schedule Type	Minutes Per Mfg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	50	3	16	100
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses

OCT 25 2012
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 THE REGISTRAR

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):
 Prerequisite: CS 15900 Minimum Grade of C-
 Restrictions: Must be enrolled in one of the following Colleges: School of Electrical and Computer Engineering, School of Biomedical Engineering

***COURSE LEARNING OUTCOMES:**
 See attachment.

Calumet Department Head _____ Date _____	Calumet School Dean _____ Date _____
Fort Wayne Department Head _____ Date _____	Fort Wayne School Dean _____ Date _____
Indianapolis Department Head _____ Date _____	Indianapolis School Dean _____ Date _____
North Central Department Head _____ Date _____	North Central Chancellor _____ Date _____
West Lafayette Department Head _____ Date _____	West Lafayette College/School Dean _____ Date _____
	West Lafayette Registrar _____ Date _____

OFFICE OF THE REGISTRAR

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

Office of the Registrar
 FORM 40 REV. 11/09

EFD 6-12
 (2012-10)

DEPARTMENT School of Electrical and Computer Engineering (EFD 6-12) EFFECTIVE SESSION Fall 2012

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

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PROPOSED:	EXISTING:	TERMS OFFERED Check All That Apply:
Subject Abbreviation _____	Subject Abbreviation <u>ECE</u>	<input type="checkbox"/> Summer <input checked="" type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring
Course Number _____	Course Number <u>26400</u>	CAMPUS(ES) INVOLVED
Long Title <u>Advanced C Programming</u>		<input type="checkbox"/> Calumet <input type="checkbox"/> N. Central
Short Title <u>Advanced C Programming</u>		<input type="checkbox"/> Cont Ed <input type="checkbox"/> Tech Statewide
Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)		<input type="checkbox"/> Ft. Wayne <input checked="" type="checkbox"/> W. Lafayette
		<input type="checkbox"/> Indianapolis

CREDIT TYPE	COURSE ATTRIBUTES: Check All That Apply
1. Fixed Credit: Cr. Hrs. <u>3</u>	1. Pass/Not Pass Only <input type="checkbox"/>
2. Variable Credit Range: Minimum Cr. Hrs. _____ (Check One) To _____ Or _____ Maximum Cr. Hrs. _____	2. Satisfactory/Unsatisfactory Only <input type="checkbox"/>
3. Equivalent Credit: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	3. Repeatable <input type="checkbox"/>
	4. Credit by Examination <input type="checkbox"/>
	5. Special Fees <input type="checkbox"/>
	6. Registration Approval Type Department <input checked="" type="checkbox"/> Instructor <input type="checkbox"/>
	7. Variable Title <input type="checkbox"/>
	8. Honors <input type="checkbox"/>
	9. Full Time Privilege <input type="checkbox"/>
	10. Off Campus Experience <input type="checkbox"/>

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
Lecture	50	3	16	100
Recitation				
Presentation				
Laboratory				
Lab Prep				
Studio				
Distance				
Clinic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses
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COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):
 Prerequisite: CS 16900 Minimum Grade of C-
 Restrictions: Must be enrolled in one of the following Colleges: School of Electrical and Computer Engineering, School of Biomedical Engineering

COURSE LEARNING OUTCOMES:
 See attachment.

Calumet Department Head _____ Date _____	Calumet School Dean _____ Date _____
Fort Wayne Department Head _____ Date <u>1/13/12</u>	Fort Wayne School Dean <u>Stephen Hendley</u> Date <u>1.13.12</u>
Indianapolis Department Head _____ Date _____	Indianapolis School Dean _____ Date _____
North Central Department Head _____ Date <u>2/31/11</u>	North Central Chancellor _____ Date _____
West Lafayette Department Head _____ Date _____	West Lafayette College/School Dean _____ Date _____
	West Lafayette Registrar _____ Date <u>2/14/12</u>

OFFICE OF THE REGISTRAR

TO: The Faculty of the College of Engineering

FROM: The Faculty of the School of Electrical and Computer Engineering

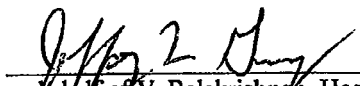
RE: Change to Existing Undergraduate Course: ECE 26400, Advanced C Programming, change in credit hours.

The faculty of the School of Electrical and Computer Engineering has approved the following changes to an existing course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: ECE 26400 Advanced C Programming
 Sem. Fall and Spring; Cr. 2; Lecture 2.
Prerequisites: CS 15900, minimum grade of C-
Restrictions: Must be enrolled in one of the following: School of Electrical & Computer Engineering, School of Biomedical Engineering
Description: Continuation of a first programming course. Topics include files, structures, pointers, and the proper use of dynamic data structures.

To: ECE 26400 Advanced C Programming
 Sem. Fall and Spring; Cr. 3; Lecture 3.
Prerequisites: CS 15900, minimum grade of C-
Restrictions: Must be enrolled in: School of Electrical & Computer Engineering, School of Biomedical Engineering
Description: Continuation of a first programming course. Topics include files, structures, pointers, and the proper use of dynamic data structures.

Reason: The Computer Engineering faculty in ECE has determined that two contact hours per week is insufficient to convey the course information.



 on behalf of V. Balakrishnan, Head
 School of Electrical and Computer Engineering

APPROVED FOR THE FACULTY
 OF THE SCHOOLS OF ENGINEERING
 BY THE ENGINEERING
 CURRICULUM COMMITTEE

ECC Minutes #15

Date 10/17/11

Chairman ECC R. Cipra

Form 40 attachment

School of Electrical and Computer Engineering (EFD 6-12)

Course Learning Outcomes:

- i) the ability to read and write C programs that uses files [1,4,a,b,c,e,k]
- ii) the ability to read and write C programs that use structures [1,4,a,b,c,e,k]
- iii) the ability to read and write C programs that use dynamic data structures [1,4,a,b,c,e,k]
- iv) the ability to read and write C programs that use recursion [1,4,a,b,c,e,k]

