

DEPARTMENT Electrical & Computer Engineering

DATE SUBMITTED 11/5/2001

DATE EFFECTIVE 1/7/2002
Summer 2002

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

PURPOSE

- | | |
|---|---|
| <input type="checkbox"/> 1. Deletion of a course | <input type="checkbox"/> 8. Change in semesters offered |
| <input type="checkbox"/> 2. New course with supporting documents | <input type="checkbox"/> 9. Change in course credit/type |
| <input type="checkbox"/> 3. Add existing course offered at another campus | <input type="checkbox"/> 10. Change in course attributes |
| <input type="checkbox"/> 4. Change in course number at same level | <input type="checkbox"/> 11. Change in instructional hours |
| <input type="checkbox"/> 5. Downgrading of course level | <input checked="" type="checkbox"/> 12. Change in prerequisites |
| <input type="checkbox"/> 6. Upgrading of course level | <input checked="" type="checkbox"/> 13. Change in description of course content |
| <input type="checkbox"/> 7. Change in course title | <input type="checkbox"/> 14. Transfer of course from one dept. to another |

EXISTING:

PROPOSED:

SEMESTERS OFFERED

Subject Abbreviation EE ECE Subject Abbreviation _____
Course Number 362 Course Number _____

Check All That Apply.

Summer Fall Ag Winter Spring

Proposed Title Microprocessor Systems and Interfacing

Variable Title Yes No

Abbreviated Title Micropro Sys & Infrac

Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY)

CROSS LISTED COURSES

CREDIT TYPE

COURSE ATTRIBUTES: Check All That Apply.

1. Fixed Credit: Cr. Hrs. 4
2. Variable Credit Range:
Minimum Cr. Hrs. _____
(Check One) To Or
Maximum Cr. Hrs. _____
3. Equivalent Credit: Yes No
4. Thesis Credit: Yes No

1. Pass/Not Pass Only
2. Repeatable for Credit
3. Available for Credit by Examination
4. Designator Required
5. Special Fees
6. Approval Required for Enrollment
Department
Instructor

Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE
Primary	<u>3</u>		Auto-tutorial			Thesis		
Secondary			Ind. Study			Observation		
Laboratory	<u>3</u>		Clinic			Matts Based		
Lab. Prep.			Experiential					

CAMPUS(ES) INVOLVED

- Calumet
Fort Wayne
Indianapolis
North Central
West Lafayette
Off Campus

COURSE DESCRIPTION (PREREQUISITES INCLUDED):

Prerequisite: CS 156 or equivalent programming experience and EE 270; prerequisite or corequisite: EE 255
Introduction to basic computer organization, microprocessor instruction sets, assembly language programming techniques, design of digital and analog interfaces, and microprocessor system design considerations. Practical hands-on experience with microprocessor software applications and interfacing techniques. Topics include design and implementation of a simple computer, a detailed study of a particular microcontroller architecture and instruction set, assembly language programming techniques, system control signals and I/O structure, memory system design, I/O port design and handshaking protocols, interrupts and handlers. On-chip peripheral subsystems: Serial communication controllers, timers, pulse-width modulation generators, analog-to-digital converters.

Calumet Undergrad Curriculum Committee	Date	Calumet Department Head	Date	Calumet School Dean	Date
Fort Wayne Department Head	Date	Fort Wayne School Dean	Date	Fort Wayne Chancellor	Date
				<i>C.D. Sutton</i>	
				Appr. for Faculty	#958
				<i>C.D. Sutton, Chair</i>	2/1/02
Indianapolis Department Head	Date	Indianapolis School Dean	Date	Undergrad Curriculum Committee	Date
North Central Department Head	Date	North Central Vice Chancellor	Date	Date Approved by Graduate Council	
<i>W. K. ...</i>	<i>11/9/01</i>	<i>L. J. ...</i>	<i>9 Feb 02</i>	Graduate Council Secretary	Date
West Lafayette Department Head	Date	West Lafayette School Dean	Date	<i>Debra Shute</i>	<i>2/6/02</i>
Graduate Area Committee Convener	Date	Graduate Dean	Date	West Lafayette Registrar	Date

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| <input type="checkbox"/> 7. Change in course title | <input type="checkbox"/> 14. Transfer of course from one dept. to another |

EXISTING:

PROPOSED:

Subject Abbreviation EE Subject Abbreviation _____
 Course Number 477 Course Number _____
 Proposed Title Digital Systems Senior Project
 Variable Title Yes No

SEMESTERS OFFERED

Check All That Apply.
 Summer Fall Ag Winter Spring

Abbreviated Title Dig Systems Sr Project
 Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY)

CROSS LISTED COURSES

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
 4. Thesis Credit: Yes No

COURSE ATTRIBUTES: Check All That Apply.

1. Pass/Not Pass Only
 2. Repeatable for Credit
 3. Available for Credit by Examination
 4. Designator Required
 5. Special Fees
 6. Approval Required for Enrollment
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Secondary			Ind. Study			Observation		
Laboratory	<u>3</u>		Clinic			Matts Based		
Lab. Prep.			Experiential					

CAMPUS(ES) INVOLVED

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 Fort Wayne
 Indianapolis
 North Central
 West Lafayette
 Off Campus

COURSE DESCRIPTION (PREREQUISITES INCLUDED):

Prerequisite: EE 362

A structured approach to the development and integration of embedded microcontroller hardware and software that provides senior-level students with significant design experience applying microcontrollers to a wide range of embedded systems (e.g., instrumentation, process control, telecommunications, intelligent devices, etc.). The primary objective is to provide practical experience developing integrated hardware and software for embedded microcontroller systems in an environment that models one which students will most likely encounter in industry.

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West Lafayette Department Head	Date	West Lafayette School Dean	Date	Graduate Council Secretary	Date
Graduate Area Committee Convener	Date	Graduate Dean	Date	<i>Debra Sheets</i> 2/20/02 West Lafayette Registrar	Date

