

DEPARTMENT Electrical & Computer Engineering

DATE SUBMITTED 1/19/2001

DATE EFFECTIVE 8/20/2001
Spring 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 checked="" 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 type="checkbox"/> 12. Change in prerequisites |
| <input type="checkbox"/> 6. Upgrading of course level | <input 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:

Subject Abbreviation _____ Subject Abbreviation EE ECE
 Course Number _____ Course Number 634
 Proposed Title Digital Video Systems
 Variable Title Yes No

SEMESTERS OFFERED
* Spring of Odd Years

Check All That Apply.
 Summer Fall Ag Winter Spring

Abbreviated Title Digital Video Systems

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

CROSS LISTED COURSES

CREDIT TYPE

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

COURSE ATTRIBUTES: Check All That Apply.

- Pass/Not Pass Only
 - Repeatable for Credit
 - Available for Credit by Examination
 - Designator Required
 - Special Fees
 - 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 | | | Clinic | | | Matts Based | | |
| Lab. Prep. | | | Experiential | | | | | |

CAMPUS(ES) INVOLVED

- Calumet
 Fort Wayne
 Indianapolis
 North Central
 West Lafayette
 Off Campus

COURSE DESCRIPTION (PREREQUISITES INCLUDED):

Pre- or co-requisite: EE 600. (Offered in alternate years.)
 Digital video systems. Characteristics of basic analog video systems, including bandwidth constraints, color encoding, and composite signal formation. Digital video concepts with emphasis on processing of time-varying images. Topics include: filtering, enhancement, restoration, and motion estimation and prediction. Digital video compression techniques, including intraframe coding approaches, with particular emphasis on JPEG. MPEG1 and MPEG2 video compression standards. Low bit rate approaches, including H.261, H.263, and MPEG4. Applications include: video servers, transmission systems, high definition television, multimedia systems, and videoconferencing systems. Professor Delp.

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|---|------------------|---|------------------|--|-----------------------------------|
| 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 <u>C.D. Sutton</u> | Date |
| Indianapolis Department Head | Date | Indianapolis School Dean | Date | Appr. for Faculty <u>C.D. Sutton, Chair</u> | #949 9/5/01 |
| North Central Department Head | Date | North Central Vice Chancellor | Date | Undergrad Curriculum Committee | Date |
| West Lafayette Department Head <u>L. K. D...</u> | <u>1/29/2001</u> | West Lafayette School Dean <u>L. D. ...</u> | <u>6 Sept 01</u> | APPROVED <u>11/15/01</u> | Date Approved by Graduate Council |
| Graduate Area Committee Convener <u>R. B. ...</u> | <u>11/15/01</u> | Graduate Dean | Date | Graduate Council Secretary <u>Marilyn D. ...</u> | Date <u>1/24/02</u> |
| | | | | West Lafayette Registrar <u>Debra ...</u> | Date <u>7/15/02</u> |

