

DEPARTMENT Mechanical Engineering

DATE SUBMITTED 10/24/01

DATE EFFECTIVE Spring 2003

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

PURPOSE

- | | |
|---|---|
| <input checked="" 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:

SEMESTERS OFFERED

Subject Abbreviation _____
Course Number _____

Subject Abbreviation ME
Course Number 689

Check All That Apply.

Summer Fall Ag Winter Spring

Proposed Title Adaptive Control

Variable Title Yes No

Abbreviated Title Adaptive Control

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. 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

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
Primary
Secondary
Laboratory
Lab. Prep.

Class Hours
3

FTE

Instructional Type
Auto-tutorial
Ind. Study
Clinic
Experiential

Class Hours

FTE

Instructional Type
Thesis
Observation
Mats Based

Class Hours

FTE

CAMPUS(ES) INVOLVED
Calumet
Fort Wayne
Indianapolis
North Central
West Lafayette
Off Campus

Prerequisite:

COURSE DESCRIPTION (PREREQUISITES INCLUDED): ME 575 or consent of the instructor. Theory and application of adaptive control of linear systems in both continuous and discrete time domain. Real-time parameter estimation algorithms, direct and indirect adaptive methods, deterministic self-tuning regulators, Lyapunov stability theory, input-output stability, model-reference adaptive control, stability and convergence of adaptive algorithms, robustness, and implementation issues, with laboratory experiments and demonstrations. Professor Yao.

(Offered in alternate years.) (May be repeated for credit.)

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 <u>11/14/01</u> Appr. for Faculty #954 C.D. Sutton, Chair
Indianapolis Department Head _____ Date _____	Indianapolis School Dean _____ Date _____	Undergrad Curriculum Committee _____ Date _____

APPROVED 2/21/02

North Central Department Head _____ Date _____	North Central Vice Chancellor _____ Date _____	Date Approved by Graduate Council _____
West Lafayette Department Head <u>R. B. ...</u> <u>2/21/02</u>	West Lafayette School Dean <u>D. Wagner</u> <u>13 Nov 01</u>	Graduate Council Secretary <u>Marjorie D. Heise</u> <u>4/5/02</u>
Graduate Area Committee Convener _____ Date _____	Graduate Dean _____ Date _____	West Lafayette Registrar <u>Debra Shute</u> <u>4/25/02</u>

