

DEPARTMENT Aeronautics & Astronautics

DATE SUBMITTED 10/23/01

DATE EFFECTIVE Spr 2002

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

PURPOSE

- | | |
|---|--|
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> 1. Deletion of a course <input type="checkbox"/> 2. New course with supporting documents <input type="checkbox"/> 3. Add existing course offered at another campus <input type="checkbox"/> 4. Change in course number at same level <input type="checkbox"/> 5. Downgrading of course level <input type="checkbox"/> 6. Upgrading of course level <input type="checkbox"/> 7. Change in course title | <ul style="list-style-type: none"> <input type="checkbox"/> 8. Change in semesters offered <input type="checkbox"/> 9. Change in course credit/type <input type="checkbox"/> 10. Change in course attributes <input type="checkbox"/> 11. Change in instructional hours <input type="checkbox"/> 12. Change in prerequisites <input type="checkbox"/> 13. Change in description of course content <input type="checkbox"/> 14. Transfer of course from one dept. to another |
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EXISTING:

PROPOSED:

SEMESTERS OFFERED

Subject Abbreviation
Course Number

Subject Abbreviation AAE
Course Number 536

Check All That Apply.

Summer Fall Ag Winter Spring

Proposed Title Advanced Energy Conversion for Aerospace Systems

Variable Title Yes No

Abbreviated Title Adv Enrgy Con Aero Sys

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

Department
Instructor

Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE
Primary	3		Auto-tutorial			Thesis		
Secondary			Ind. Study			Observation		
Laboratory			Clinic			Mats Based		
Lab. Prep.			Experiential					

CAMPUS(ES) INVOLVED

- Calumet
- Fort Wayne
- Indianapolis
- North Central
- West Lafayette
- Off Campus

COURSE DESCRIPTION (PREREQUISITES INCLUDED):

AAE 536, Advanced Energy Conversion for Aerospace Systems 3 Sem. 1, Class 3, cr. 3. Prerequisite: AAE372 or AAE 439, or AAE 539, or consent of instructor.

Fundamentals of advanced energy conversion processes, with a strong emphasis on thermodynamics, kinetics, and atomic physics, as applied to aerospace systems. Concepts in physical chemistry, including atomic phenomena, a review of thermodynamics, kinetics, and rate processes, electrochemistry, photochemistry, surface processes and catalysis, and colloidal phenomena, energy storage, thermoelectric and thermionic power generation, fuel cells, direct matter to energy conversion, field power generation, and electric fusion concepts.

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
Indianapolis Department Head	Date	Indianapolis School Dean	Date	Appr. for Faculty	Date
				C.D. Sutton, Chair	11/14/01
				Undergrad Curriculum Committee	Date
				APPROVED 2/21/02	
North Central Department Head	Date	North Central Vice Chancellor	Date	Date Approved by Graduate Council	
<u>Shanahan</u>	<u>10/25/01</u>	<u>L. J. Hugg</u>	<u>13 Nov 01</u>	<u>Marilyn D. Leist</u>	<u>4/5/02</u>
West Lafayette Department Head	Date	West Lafayette School Dean	Date	Graduate Council Secretary	Date
<u>R. B. L.</u>	<u>2/21/02</u>			<u>Debra Shute</u>	<u>4/25/02</u>
Graduate Area Committee Convener	Date	Graduate Dean	Date	West Lafayette Registrar	Date