**PURDUE UNIVERSITY**

**REQUEST FOR ADDITION, DELETION, OR REVISION OF A COURSE**

**DEPARTMENT**: Aeronautics & Astronautics

**DATE SUBMITTED**: 10/23/01

**DEPARTMENT DOCUMENT NO.** 01-31a

**SCHOOL DOCUMENT NO.** 88-00

**GRADUATE COUNCIL DOCUMENT NO.** 01-31a

**DATE EFFECTIVE**: Fall 2002

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

**PURPOSE**

1. Deletion of a course
2. New course with supporting documents
3. Add existing course offered at another campus
4. Change in course number at same level
5. Downgrading of course level
6. Upgrading of course level
7. Change in course title

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**EXISTING:**

Subject Abbreviation: AAE
Course Number: 536

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**PROPOSED:**

Proposed Title: Advanced Energy Conversion for Aerospace Systems

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**SEMESTERS OFFERED**

Check All That Apply:
- Summer
- Fall
- Spring
- Winter

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**CROSS LISTED COURSES**

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<td>Primary</td>
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**COURSE DESCRIPTION (PREREQUISITES INCLUDED):**

AAE 536, Advanced Energy Conversion for Aerospace Systems. 3 Sem. 1 Class 3 cr. 3. Prerequisite: AAE 372 or AAE 432 or AAE 532 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, rate processes, electrochemistry, photochemistry, surface processes and catalysis, and colloidl phenomena, energy storage, thermoelectric and thermionic power generation, fuel cells, direct matter to energy conversion, field power generation, and nuclear fusion concepts.

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**CAMPUSES INVOLVED**

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

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**APPROVED** 2/21/02

Date Approved by Graduate Council

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**SIGNATURES**

- Calumet Undergrad Curriculum Committee
- Calumet Department Head
- Calumet School Dean
- Fort Wayne Department Head
- Fort Wayne School Dean
- Fort Wayne Chancellor
- Appr. for Faculty
- Indianapolis Department Head
- Indianapolis School Dean
- C.D. Sutton, Chair
- Undergrad Curriculum Committee
- North Central Department Head
- North Central Vice Chancellor
- West Lafayette Department Head
- West Lafayette School Dean
- Graduate Area Committee/Convener
- Graduate Dean
- West Lafayette Registrar

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**OFFICE OF THE REGISTRAR**

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