

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

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

EXISTING:

PROPOSED:

Subject Abbreviation AAE
Course Number 519
Proposed Title Hypersonic Aerothermodynamics
Variable Title Yes No

Subject Abbreviation _____
Course Number _____

SEMESTERS OFFERED

Check All That Apply.
Summer Fall Ag Winter Spring

Abbreviated Title Hypersonic Aerothermo

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	3		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):

AAE 519 Hypersonic Aerothermodynamics, Sem. 2, class 3, cr. 3. Prerequisites: AAE 334 or equivalent, and MA 303 or 304.

Aerodynamics of satellites and planetary reentry. Continuum hypersonic flow. Inviscid and viscous effects, boundary layers, and heat transfer. Shock and boundary-layer interactions. Equilibrium flow of high-temperature reacting gases. Nonequilibrium effects. Kinetic theory and rarefied flows. Direct Simulation Monte Carlo techniques.

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
				Appr. for Faculty	#954
				C.D. Sutton, Chair	11/14/01
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>John A. Jan</i>	<i>10/25/01</i>	<i>Si O. Huggins</i>	<i>13 Nov 01</i>	<i>Marilyn D. Heist</i>	<i>12/20/01</i>
West Lafayette Department Head	Date	West Lafayette School Dean	Date	Graduate Council Secretary	Date
				<i>Debra Shute</i>	<i>12/21/01</i>
Graduate Area Committee Convener	Date	Graduate Dean	Date	West Lafayette Registrar	Date