

DEPARTMENT Aeronautics & Astronautics

DATE SUBMITTED 04/30/04

DATE EFFECTIVE Fall 2005

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

PURPOSE

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

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| EXISTING: Subject Abbreviation _____ Course Number _____ Proposed Title <u>Laminar-Turbulent Transition</u> Variable Title Yes <input type="checkbox"/> No <input type="checkbox"/> Abbreviated Title <u>Lam.-Turb. Transition</u> Abbreviated title will be entered by the Office of the Registrar if omitted. (22 CHARACTERS ONLY) | PROPOSED: Subject Abbreviation <u>AAE</u> Course Number <u>624</u> | SEMESTERS OFFERED Check All That Apply. Summer <input type="checkbox"/> Fall <input checked="" type="checkbox"/> Ag Winter <input type="checkbox"/> Spring <input type="checkbox"/> |
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| CROSS LISTED COURSES _____ _____ _____ | CREDIT TYPE 1. Fixed Credit: Cr. Hrs. <u>3</u> 2. Variable Credit Range: Minimum Cr. Hrs _____ (Check One) To _____ Or _____ Maximum Cr. Hrs. _____ 3. Equivalent Credit: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 4. Thesis Credit: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | COURSE ATTRIBUTES: Check All That Apply. 1. Pass/Not Pass Only <input type="checkbox"/> 2. Repeatable for Credit <input type="checkbox"/> 3. Available for Credit by Examination <input type="checkbox"/> 4. Designator Required <input type="checkbox"/> 5. Special Fees <input type="checkbox"/> 6. Approval Required for Enrollment Department _____ Instructor _____ |
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| Instructional Type | Class Hours | FTE | Instructional Type | Class Hours | FTE | Instructional Type | Class Hours | FTE | CAMPUS(ES) INVOLVED |
|--------------------|-------------|-----|--------------------|-------------|-----|--------------------|-------------|-----|--|
| Primary | 3 | | Auto-tutorial | | | Thesis | | | Calumet |
| Secondary | | | Ind. Study | | | Observation | | | Fort Wayne |
| Laboratory | | | Clinic | | | Matis Based | | | Indianapolis |
| Lab. Prep. | | | Experiential | | | | | | North Central |
| | | | | | | | | | West Lafayette |
| | | | | | | | | | Off Campus <input checked="" type="checkbox"/> |

COURSE DESCRIPTION (PREREQUISITES INCLUDED):
 AAE 624 Laminar-Turbulent Transition Sem. 1, class 3 cr. 3; Prerequisite: AAE 511 or equivalent.
 Instability mechanisms, such as Kelvin-Helmholtz, Tollmien-Schlichting, Görtler, and crossflow. Secondary instabilities. Nonlinear and nonparallel effects; the Parabolized Stability Equations; receptivity; transition prediction. Effects of compressibility, heating, roughness, turbulence, noise, curvature, etc. Turbulent spots and the extent of transitional flow.
 Professor Schneider.

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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 _____ Date _____ |
| Indianapolis Department Head _____ Date _____ | Indianapolis School Dean _____ Date _____ | Undergrad Curriculum Committee _____ Date _____ |
| North Central Department Head _____ Date _____ | North Central Vice Chancellor _____ Date _____ | APPROVED 10/21/04 Date Approved by Graduate Council _____ |
| West Lafayette Department Head <u>J. Kern</u> 4/30/04 | West Lafayette School Dean <u>Leah H. Janis</u> 5/10/04 | Graduate Council Secretary <u>Marilyn D. Heist</u> 12/9/04 |
| Graduate Area Committee Convener <u>Andrew Hsu</u> 10/21/04 | Graduate Dean _____ Date _____ | West Lafayette Registrar <u>Debra Shuts</u> 12/16/04 |