

DEPARTMENT Materials Engineering

DATE SUBMITTED 02/18/05

DATE EFFECTIVE Fall 2005

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

PURPOSE

- | | | | |
|-------------------------------------|--|--------------------------|--|
| <input 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 _____ Subject Abbreviation MSE
 Course Number _____ Course Number 525
 Proposed Title Structure-Property Relationships of Engineering Polymers
 Variable Title Yes No

Check All That Apply.
 Summer Fall Ag Winter Spring

Abbreviated Title Struct-Prop Eng Polymr
 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	Class Hours	FTE	Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE
Primary	<u>3</u>		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):

Sem. 2. Class 3, Cr. 3. (Offered in Alternate Years) Prerequisites: ~~Senior~~ senior or graduate standing; junior by ~~permission~~ consent of instructor.

Structure-property relationships developed for commodity and engineering resins. Focus on connecting bonding and polymer structure (i.e., molecular weight, tacticity, crystallinity as it regards spherulites) to mechanical (yield phenomena and fracture) and thermomechanical behavior (viscoelasticity). Thermal characterization techniques, including DSC, TGA, TMA, and DMTA. Flow of polymer melts related to common melt processing techniques (i.e. extrusion and injection molding).

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 5/21/05 Date Approved by Graduate Council _____
<u>A. A. ...</u> 2/2/05 Vest Lafayette Department Head _____ Date _____	<u>Leah H. ...</u> 2/23/05 West Lafayette School Dean _____ Date _____	<u>Marilyn D. ...</u> 5/20/05 Graduate Council Secretary _____ Date _____
<u>...</u> 9/21/05 Graduate Area Committee Convener _____ Date _____	Graduate Dean _____ Date _____	<u>Debra K. Sheets</u> West Lafayette Registrar _____ Date _____

JUN 2 2005