Department: Materials Engineering  Date Submitted: 02/18/05  Date Effective: Fall 2006

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
8. Change in semesters offered
9. Change in course credit/type
10. Change in course attributes
11. Change in instructional hours
12. Change in prerequisites
13. Change in description of course content
14. Transfer of course from one dept. to another

EXISTING:

Subject Abbreviation: MSE
Course Number: 525
Proposed Title: Structure-Property Relationships of Engineering Polymers
Abbreviated Title: Struct-Prop Eng Polymr

PROPOSED:

Subject Abbreviation: MSE
Course Number: 525
Proposed Title: Structure-Property Relationships of Engineering Polymers
Abbreviated Title: Struct-Prop Eng Polymr

SEMESTERS OFFERED

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

CROSS LISTED COURSES

Instructional Type: Auto-tutorial
Class: Ind. Study
FTE: Observation

COURSE DESCRIPTION (PREREQUISITES INCLUDED):

Sem. 2. Class 3, Cr. 3. (Offered in Alternate Years)  Prerequisites: Senior or graduate standing; junior by permission 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
West Lafayette Department Head Date
West Lafayette School Dean Date
Graduate Area Committee Convener Date
Graduate Dean Date
West Lafayette Registrar Date

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