TO: The Engineering Faculty

FROM: The Faculty of the School of Materials Engineering

DATE: October 14, 2013

RE: Prerequisite Change for MSE 37000

The faculty of the School of Materials Engineering has approved the following change to the prerequisites for MSE 37000. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: MSE 37000 Electrical, Optical, Magnetic Properties of Materials
Sem. 1. Class 3, Cr. 3.
Prerequisites: MSE 23000, and PHYS 24100.

Catalog Description: An introductory course to provide basic background on the behavior of materials; electronic and ionic conduction, electronic processes in semiconductors, dielectric, optical, and magnetic properties, and superconductivity; emphasis is on the relation between the properties and the structural aspects of materials.

To: MSE 37000 Electrical, Optical, Magnetic Properties of Materials
Sem. 1. Class 3, Cr. 3.
Prerequisites: MSE 23000, MSE 27000, and PHYS 24100.

Catalog Description: An introductory course to provide basic background on the behavior of materials; electronic and ionic conduction, electronic processes in semiconductors, dielectric, optical, and magnetic properties, and superconductivity; emphasis is on the relation between the properties and the structural aspects of materials.

Reason: MSE 27000 (Atomistic Materials Science) was a new course (EFD 46-07) introduced as part of the 2008 MSE curriculum revision (EFD 50-07). The content of MSE 27000 is now assumed in MSE 37000. In fact, MSE 27000 has been listed as a prerequisite on internal MSE documents since 2008. The purpose of this document is to formalize this prerequisite.

David F. Bahr, Professor and Head
School of Materials Engineering
### DEPARTMENT
School of Materials Engineering

### EFFECTIVE SESSION
Fall 2014

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

- 1. New course with supporting documents
- 2. Add existing course offered at another campus
- 3. Expiration of a course
- 4. Change in course number
- 5. Change in course title
- 6. Change in course credit type
- 7. Change in course attributes (department head signature only)
- 8. Change in instructional hours
- 9. Change in course description
- 10. Change in course prerequisites
- 11. Change in semesters offered (department head signature only)
- 12. Transfer from one department to another

### PROPOSED:

- Subject Abbreviation: MSE
- Course Number: 37000
- Long Title: Electrical, Optical, Magnetic Properties of Materials

### EXISTING:

- Subject Abbreviation: MSE

### TERMS OFFERED:

- Check All That Apply:
  - [x] Fall
  - [ ] Spring
  - [ ] Summer

### TERMS OFFERED:

- CAMPUS(ES) INVOLVED:
  - Calumet
  - Cont Ed
  - Ft. Wayne
  - [x] W. Lafayette
  - N. Central
  - Tech Statewide
  - Indianapolis

### CREDIT TYPE:

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### COURSE ATTRIBUTES: Check All That Apply

- 1. Pass/Not Pass Only
- 2. Satisfactory/Unsatisfactory Only
- 3. Repeatable
- 4. Credit by Examination
- 5. Fee: [ ] Coop [ ] Lab [ ] Rate Request
- 6. Registration Approval Type
  - [ ] Instructor
- 7. Variable Title
- 8. Honors
- 9. Full Time Privilege
- 10. Off Campus Experience

**COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):**

Add:
Prerequisites: MSE 29999, MSE 27000, and PHYS 21100.

**COURSE LEARNING OUTCOMES:**

**Cross-Listed Courses:**

**OFFICE OF THE REGISTRAR**

[Signature]

[Date: 12/21/13]