### Request for Addition, Expiration, or Revision of an Undergraduate Course

**Department:** Nuclear Engineering  
**Effective Session:** Fall 2013  
**Course Number:** 32000

#### 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 requisites
11. Change in semesters offered (department head signature only)
12. Transfer from one department to another

#### Proposed:
- Subject Abbreviation: 
- Course Number: 
- Long Title: 
- Short Title: 

#### Existing:
- Subject Abbreviation: NUCL
- Course Number: 
- Long Title: 
- Short Title: 

#### Terms Offered:
- Check All That Apply: 
  - Fall
  - Spring
  - Summer

#### Campus(ES) Involved:
- Calumet
- Cont Ed
- Ft Wayne
- Indianapolis
- W. Lafayette

### Course Attributes:
- 1. Pass/Not Pass Only
- 2. Satisfactory/Unsatisfactory Only
- 3. Repeatable
- 4. Credit by Examination
- 5. Special Fees
- 6. Registration Approval Type
  - Department
  - Instructor
- 7. Variable Title
- 8. Honors
- 9. Full Time Privilege
- 10. Off Campus Experience

### Course Description:
- Co-requisite with NUCL 32500 or consent of instructor

**Cross-Listed Courses**

**Received:** Oct 15, 2013

**Office of the Registrar**

---

**Office of the Registrar**
TO: The Faculty of the College of Engineering

FROM: Faculty of the School of Nuclear Engineering

SUBJECT: Change in Requisites for NUCL 32000, Nuclear Materials

The Faculty of the School of Nuclear Engineering has approved the change in requisites for NUCL 32000. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: NUCL 32000, Introduction to Materials for Nuclear Applications
Semester 1, Lecture 3, Cr. 3.
Requisites, Restrictions, and Attributes: pre-requisite of CE 27300 and MSE 23500 [may be taken concurrently]
Description: Nuclear environments and materials selection for nuclear applications, bonding, crystal structure and symmetry, defects and irradiation, chemical thermodynamics, phase equilibria, phase transformations, and corrosion in nuclear systems and design.

To: NUCL 32000, Introduction to Materials for Nuclear Applications
Semester 1, Lecture 3, Cr. 3
Requisites, Restrictions, and Attributes: co-requisite with NUCL 32500 or consent of instructor
Description: Nuclear environments and materials selection for nuclear applications, bonding, crystal structure and symmetry, defects and irradiation, chemical thermodynamics, phase equilibria, phase transformations, and corrosion in nuclear systems and design.

Reason: This course is an introductory course focused on materials topics for nuclear applications. Emphasis on nuclear and radiation effects on metals has been increased and more material in mechanical properties has been added. The faculty in the School of Nuclear Engineering has removed prerequisite of NUCL 27300 for this course since its emphasis on mechanical design has changed since Fall 2007.

Ahmed Hassanein, Department Head
Paul L. Wattelet Professor
School of Nuclear Engineering