### Purdue University

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

**ARTMENT:** CHE  
**EFFECTIVE SESSION:** Fall 2007

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

- New course with supporting documents
- Add existing course offered at another campus
- Expiration of a course
- Change in course number
- Change in course title
- Change in course credit/type
- Change in course attributes (department head signature only)
- Change in instructional hours
- Change in course description
- Change in course requisites
- Change in semesters offered (department head signature only)
- Transfer from one department to another

**Proposed:**
- Subject Abbreviation: CHE
- Course Number: 348
- Long Title: (List the long title of the course)
- Short Title: (List the short title of the course)

**Existing:**
- Subject Abbreviation: CHE
- Course Number: 348
- Long Title: (List the long title of the course)
- Short Title: (List the short title of the course)

**Terms Offered:**
- Summer
- Fall
- Spring

**Campus(ES) Involved:**
- Calumet
- N. Central
- Cont Ed
- Tech Statewide
- Ft. Wayne
- W. Lafayette
- Indianapolis

**Credit Type:**

<table>
<thead>
<tr>
<th>Credit Type</th>
<th>Course Attributes: Check All That Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fixed Credit: Cr. Hrs.</td>
<td></td>
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<tr>
<td>2. Variable Credit Range: Minimum Cr. Hrs. (Check One)</td>
<td>1. Pass/Not Pass Only</td>
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<td>3. Equivalent Credit: Yes</td>
<td>7. Registration Approval Type</td>
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<tr>
<td>4. Thesis Credit: Yes</td>
<td>8. Variable Title</td>
</tr>
<tr>
<td>Instructional Type:</td>
<td></td>
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<tr>
<td>5. Designator Required</td>
<td>9. Remedial</td>
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<tr>
<td>6. Special Fees</td>
<td>10. Honors</td>
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</tbody>
</table>

**Course Description (Include Requisites):**

Sem 1, 2, Class 3, or 3  
Prerequisites: CHE 211, MA 262  
Corequisite: CHE 261

Application of kinetic rate equations, mass balances and energy balances to the analysis and design of chemical reactors involving homogeneous and heterogeneous chemical reactions. Chemical equilibria, kinetic rate equations for homogeneous and heterogeneous catalyzed reactions, design of ideal isothermal reactors, effects of non-isothermal operation, effects of diffusion in porous catalysts and non-ideal mixing in continuous flow reactors.

**Calumet Department Head:**  
**Date:**  
**Calumet School Dean:**  
**Date:**

**Fort Wayne Department Head:**  
**Date:**  
**Fort Wayne School Dean:**  
**Date:**

**Indianapolis Department Head:**  
**Date:**  
**Indianapolis School Dean:**  
**Date:**

**North Central Chancellor:**  
**Date:**

**West Lafayette Department Head:**  
**Date:**  
**West Lafayette College/School Dean:**  
**Date:**

**West Lafayette Registrar:**  
**Date:**

**Office of the Registrar**
To: Faculty of the College of Engineering

From: Faculty of the School of Chemical Engineering

RE: CHE 348 prerequisite and corequisite changes

The faculty of the School of Chemical Engineering has approved the following change and submits it for your approval.

From:

**CHE 348 Chemical Reaction Engineering**
Sem 1, 2, Class 3, cr. 3
Prerequisites: CHE 211, MA 261

Application of kinetic rate equations, mass balances and energy balances to the analysis and design of chemical reactors involving homogeneous and heterogeneous chemical reactions. Chemical equilibria, kinetic rate equations for homogeneous and heterogeneously catalyzed reactions, design of ideal isothermal reactors, effects of non-isothermal operation, effects of diffusion in porous catalysts and non-ideal mixing in continuous flow reactors.

To:

**CHE 348 Chemical Reaction Engineering**
Sem 1, 2, Class 3, cr. 3
Prerequisites: CHE 211, MA 262
Corequisite: CHM 261

Application of kinetic rate equations, mass balances and energy balances to the analysis and design of chemical reactors involving homogeneous and heterogeneous chemical reactions. Chemical equilibria, kinetic rate equations for homogeneous and heterogeneously catalyzed reactions, design of ideal isothermal reactors, effects of non-isothermal operation, effects of diffusion in porous catalysts and non-ideal mixing in continuous flow reactors.

**Rationale:** Due to a change in the required MA sequence for CHE students, the faculty has determined that it better serves the students to have completed MA 262 prior to entering CHE 348. Also, upon discussion, it has been determined that it is important for the students to be exposed to CHM 261 course materials before or simultaneously with the course material in CHE 348, therefore CHM 261 is required as a co-requisite for CHE 348.

A. Varma, Head
School of Chemical Engineering
Date: 12/14/06