**PURDUE UNIVERSITY**

**REQUEST FOR ADDITION, EXPIRATION, OR REVISION OF AN UNDERGRADUATE COURSE**

(10000-40000 LEVEL)

**DEPARTMENT:** School of Chemical Engineering  
**EFFECTIVE SESSION:** Spring 2016

**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:** 
- **Course Number:** 45000

**EXISTING:**

- **Subject Abbreviation:** CHE
- **Course Number:**

**Long Title:** Design and Analysis of Process Systems

**Short Title:** Design and Analysis of Process Systems

_Abbreviated title will be entered by the Office of the Registrar if omitted. (50 CHARACTERS ONLY)_

**TERMS OFFERED:**

- [ ] Summer
- [x] Fall
- [x] Spring

**CAMPUS(ES) INVOLVED:**

- Calumet
- W. Central
- Cont Ed
- Tech Statewide
- Ft. Wayne
- W. Lafayette
- Indianapolis

**CREDIT TYPE**

1. Fixed Credit: Cr. Hrs: 
2. Variable Credit Range: 
   - Minimum Cr. Hrs: 
     - (Check One) To [ ] Or [ ]
   - Maximum Cr. Hrs: 
3. Equivalent Credit: Yes [ ] No [ ]

**COURSE ATTRIBUTES:**

- Pass/Not Pass Only [ ]
- Satisfactory/Unsatisfactory Only [ ]
- Repeatable [ ]
- Maximum Repeatable Credit: 
- Credit by Examination [ ]
- Fees [ ]
- Course attributes: Check All That Apply
- Coop [ ]
- Lab [ ]
- Rate Request [ ]
- Off-Campus Experience [ ]

**SCHEDULE TYPE**

- Lecture
- Recitation
- Presentation
- Laboratory
- Lab Prep
- Studio
- Distance
- Clinic
- Experiential
- Research
- Ind. Study
- Pract/Observ

<table>
<thead>
<tr>
<th>Schedule Type</th>
<th>Minutes</th>
<th>Meetings Per Week</th>
<th>Weeks Offered</th>
<th>% of Credit Allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab Prep</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ind. Study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pract/Observ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Use of process synthesis methods and concepts; detailed design of unit operation equipment, the economics of chemical plants and flow sheet optimization methods. Synthesize, develop, and evaluate a preliminary design of a chemical process that meets market requirements for a specific product. Analysis of design alternatives using case studies and optimization methods.

**COURSE LEARNING OUTCOMES**

---

**Cross-Listed Courses**

---

**Calumet Department Head**

- [Signature]

**Calumet School Dean**

- [Signature]

**Ft. Wayne Department Head**

- [Signature]

**Ft. Wayne School Dean**

- [Signature]

**Indianapolis Department Head**

- [Signature]

**Indianapolis School Dean**

- [Signature]

**North Central Faculty Senate Chair**

- [Signature]

**Vice Chancellor for Academic Affairs**

- [Signature]

---

**West Lafayette Department Head**

- [Signature] 8/5/2015

**West Lafayette College/School Dean**

- [Signature]

**West Lafayette Registrar**

- [Signature]
TO: The Faculty of the College of Engineering
FROM: The School of Chemical Engineering
RE: Change to Existing Undergraduate Course, CHE 45000 description

The faculty of the School of Chemical Engineering has approved the change in course description for the course listed below. This action is now submitted to the Engineering Faculty with a recommendation for approval.

FROM: CHE 45000 Design and Analysis of Process Systems

Use of process and product synthesis methods and concepts; detailed design of unit operation equipment, the economics of chemical plants and flow sheet optimization methods. Synthesize, develop, and evaluate a preliminary design of a chemical process that meets market requirements for a specific product. Analysis of design alternatives using case studies and optimization methods.

TO: CHE 45000 Design and Analysis of Process Systems

Use of process synthesis methods and concepts; detailed design of unit operation equipment, the economics of chemical plants and flow sheet optimization methods. Synthesize, develop, and evaluate a preliminary design of a chemical process that meets market requirements for a specific product. Analysis of design alternatives using case studies and optimization methods.

REASON: The current course description does not adequately represent the CHE 45000 course. The new description has been changed to reflect the updated content of the course.

Arvind Varma, Jay and Cynthia Ihlenfeld Head
School of Chemical Engineering