TO: The Faculty of the College of Engineering  
FROM: The Faculty of Agricultural and Biological Engineering  
RE: Deletion of ABE 45400

The faculty of the Department of Agricultural and Biological Engineering have approved the deletion of the following course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

ABE 45400 Transport Progress in Biological and Food Process Systems  
Sem 2. Class 3, Lab 2, Cr. 4  
Prerequisites: CHE 37800 [may be taken concurrently]

Application of momentum and heat transfer to biological and food process engineering. Viscosity, non-Newtonian fluids, experimental methods of rheological characterization of food and biological systems; viscoelasticity; design equations for pipe flow, pumps, mixing, emulsification, extrusion, sheeting, heat exchangers, aseptic processing, sterilization, freezing, and evaporation.

Reason: This course is being replaced with ABE 45700 (3 credits). The lab is being dropped from the new course and incorporated into ABE 30400. That reduction in course content and credit hours will help the program meet the 128 credit hour constraint.

Bernard A. Engel, Professor and Head  
Agricultural and Biological Engineering Department
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF AN UNDERGRADUATE COURSE
(10000-40000 LEVEL)

DEPARTMENT: Agricultural and Biological Engineering
EFFECTIVE SESSION: Spring 2010

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/term

PROPOSED:
Subject Abbreviation
Course Number
Long Title: Transport Processes in Biological and Food Process Systems
Short Title:

existing:
Subject Abbreviation
Course Number

CAMPUS(ES) INVOLVED:

Fall
Spring
Summer

TERMS OFFERED:
Check All That Apply

1. Pass/No Pass Only
2. Satisfactory/Unsatisfactory Only
3. Repeatable
4. Credit by Examination
5. Special Fees
6. Registration Approval Type

COURSE DESCRIPTION (INCLUDE REQUIREMENTS/RESTRICTIONS):

COURSE LEARNING OUTCOMES:

Cabinet Department Head
Date
Cabinet School Dean
Date

Fort Wayne Department Head
Date
Fort Wayne School Dean
Date

Indianapolis Department Head
Date
Indianapolis School Dean
Date

North Central Faculty Senate Chair
Date
Vice Chancellor for Academic Affairs
Date

West Lafayette Department Head
Date
West Lafayette College/School Dean
Date
West Lafayette Registrar
Date

Office of the Registrar

OFFICE OF THE REGISTRAR

MAY 2 3 2013

RECEIVED

EFD 57-13
### PURDUE UNIVERSITY

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

**(10000-40000 LEVEL)**

**DEPARTMENT:** Agricultural and Biological Engineering  
**EFFECTIVE SESSION:** Spring 2013

**INSTRUCTIONS:** Please check the item below which describes 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/restrictions
- [ ] Change in semesters offered (department head signature only)
- [ ] Transfer from one department to another

**PROPOSED:**

- **Subject Abbreviation:** ABE  
- **Course Number:** 45400  
- **Long Title:** Transport Processes in Biological and Food Process Systems

**EXISTING:**

- **Subject Abbreviation:** ABE  
- **Course Number:**

**TERMS OFFERED**

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

**CAMPUS(ES) INVOLVED**

- [ ] Calumet  
- [ ] Cont.Ed  
- [ ] Ft. Wayne  
- [ ] Tech Statewide  
- [x] W. Lafayette  
- [ ] Indianapolis

**Abbreviated title will be entered by the Office of the Registrar if omitted. (20 CHARACTERS ONLY)**

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<th>CREDIT TYPE</th>
<th>COURSE ATTRIBUTES: Check All That Apply</th>
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<td>6. Registration Approval Type</td>
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<td>2. Variable Credit Range:</td>
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<td>Or</td>
<td>5. Special Fees</td>
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<td>Maximum Cr. Hrs</td>
<td>7. Variable Title</td>
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<td>3. Equivalent Credit:</td>
<td>8. Honors</td>
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<tr>
<td>Yes</td>
<td>9. Full Time Privilege</td>
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<tr>
<td>No</td>
<td>10. Off Campus Experience</td>
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**Schedule Type:**  
- Minutes Per Week
- Meetings Per Week
- % of Credit Offered
- % of Credit Allocated

**Cross-Listed Courses**

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

**COURSE LEARNING OUTCOMES:**

<table>
<thead>
<tr>
<th>Calumet Department Head</th>
<th>Date</th>
<th>Calumet School Dean</th>
<th>Date</th>
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**OFFICE OF THE REGISTRAR**