

PURDUE UNIVERSITY  
REQUEST FOR ADDITION, EXPIRATION,  
OR REVISION OF AN UNDERGRADUATE COURSE  
(10000-40000 LEVEL)

E+D 62-10

DEPARTMENT School of Chemical Engineering EFFECTIVE SESSION Fall 2010 SP 2011

- INSTRUCTIONS: Please check the items below which describe the purpose of this request.
- |   |   |
|---|---|
| <input type="checkbox"/> 1. New course with supporting documents          | <input type="checkbox"/> 7. Change in course attributes (department head signature only)  |
| <input type="checkbox"/> 2. Add existing course offered at another campus | <input type="checkbox"/> 8. Change in instructional hours                                 |
| <input type="checkbox"/> 3. Expiration of a course                        | <input type="checkbox"/> 9. Change in course description                                  |
| <input type="checkbox"/> 4. Change in course number                       | <input type="checkbox"/> 10. Change in course requisites                                  |
| <input type="checkbox"/> 5. Change in course title                        | <input type="checkbox"/> 11. Change in semesters offered (department head signature only) |
| <input checked="" type="checkbox"/> 6. Change in course credit/type       | <input type="checkbox"/> 12. Transfer from one department to another                      |

<b>PROPOSED:</b> Subject Abbreviation: <input type="text"/> Course Number: <input type="text"/> Long Title: <input type="text"/> Short Title: <input type="text"/> <small>Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)</small>		<b>EXISTING:</b> Subject Abbreviation: <u>CHE</u> Course Number: <u>20500</u>		<b>TERMS OFFERED</b> Check All That Apply: <input type="checkbox"/> Summer <input checked="" type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring	
				<b>CAMPUS(ES) INVOLVED</b> <input type="checkbox"/> Calumet <input type="checkbox"/> N. Central <input type="checkbox"/> Cont Ed <input type="checkbox"/> Tech Statewide <input type="checkbox"/> Ft. Wayne <input checked="" type="checkbox"/> W. Lafayette <input type="checkbox"/> Indianapolis	

<b>CREDIT TYPE</b> 1. Fixed Credit: Cr. Hrs. <u>4</u> 2. Variable Credit Range: <input type="text"/> Minimum Cr. Hrs. <input type="text"/> (Check One) To <input type="checkbox"/> Or <input type="checkbox"/> Maximum Cr. Hrs. <input type="text"/> 3. Equivalent Credit: Yes <input type="checkbox"/> No <input type="checkbox"/>		<b>COURSE ATTRIBUTES: Check All That Apply</b> 1. Pass/Not Pass Only <input type="checkbox"/> 6. Registration Approval Type <input type="checkbox"/> 2. Satisfactory/Unsatisfactory Only <input type="checkbox"/> Department <input type="checkbox"/> Instructor <input type="checkbox"/> 3. Repeatable <input type="checkbox"/> 7. Variable Title <input type="checkbox"/> Maximum Repeatable Credit: <input type="text"/> 8. Honors <input type="checkbox"/> 4. Credit by Examination <input type="checkbox"/> 9. Full Time Privilege <input type="checkbox"/> 5. Special Fees <input type="checkbox"/> 10. Off Campus Experience <input type="checkbox"/>			
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Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated	Cross-Listed Courses
Lecture	50	3	16	75	
Recitation	50	1	16	25	
Presentation					
Laboratory					
Lab Prep					
Studio					
Distance					
Clinic					
Experiential					
Research					
Ind. Study					
Pract/Observ					

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):  
 No Change

\*COURSE LEARNING OUTCOMES  
 Course Outcomes (numbers in parentheses refer to ABET program educational objectives)  
 1. Estimate physical properties of real systems (1).  
 2. Evaluate introductory single-component and multi-component phase equilibria and incorporate these concepts into solutions of mass and energy balance problems (1, 3).  
 3. Solve steady state and transient mass and energy balance problems for both reacting and non-reacting systems with or without recycle using

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 Faculty Senate Chair	Date	Vice Chancellor for Academic Affairs	Date

West Lafayette Department Head AVanuy Date 5-12-10  
 West Lafayette College/School Dean Michael P. Klein Date 5/10/10  
 West Lafayette Registrar Linda Schaffer Date 9/10/10

99110



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(10000-40000 LEVEL)

EFD 62-10

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PROPOSED:

Subject Abbreviation   
Course Number   
Long Title   
Short Title

EXISTING:

Subject Abbreviation CHE  
Course Number 20500

TERMS OFFERED

Check All That Apply:

Summer  Fall  Spring

CAMPUS(ES) INVOLVED

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

Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)

CREDIT TYPE

1. Fixed Credit: Cr. Hrs. 4  
2. Variable Credit Range:   
Minimum Cr. Hrs  To  Or   
Maximum Cr. Hrs   
3. Equivalent Credit: Yes  No

COURSE ATTRIBUTES: Check All That Apply

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

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated
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Laboratory				
Lab Prep				
Studio				
tance				
ic				
Experiential				
Research				
Ind. Study				
Pract/Observ				

Cross-Listed Courses

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

No Change

\*COURSE LEARNING OUTCOMES

Course Outcomes (numbers in parentheses refer to ABET program educational objectives)

- Estimate physical properties of real systems (1).
- Evaluate introductory single-component and multi-component phase equilibria and incorporate these concepts into solutions of mass and energy balance problems (1, 3).
- Solve steady state and transient mass and energy balance problems for both reacting and non-reacting systems with or without recycle using

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 Faculty Senate Chair	Date	Vice Chancellor for Academic Affairs	Date

A. Varma 5-12-10 Michael J. Miller Gregory  
Lafayette Department Head Date West Lafayette College/School Dean Date West Lafayette Registrar Date



**To:** The Faculty of the College of Engineering

**From:** The Faculty of the School of Chemical Engineering

**Re:** Change of existing CHE 20500, Chemical Engineering Calculations, from 3 credit hours to 4 credit hours.

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

**From:**

CHE 20500 - Chemical Engineering Calculations  
Sem 1 and 2, Lec 3, Cr. 3

**Restrictions:** Must be enrolled in the School of Chemical Engineering

**Prerequisites:**

ENGR 12600, MA 16500, PHYS 17200,

**Concurrent Prerequisites:** CHM 11600

Quantitative application of steady-state mass and energy balances to solve problems involving multi-component systems and multi-unit chemical processes. Single-component and multi-component phase equilibria, single reaction and multiple reaction stoichiometry, coupled mass and energy balances, chemical processes involving bypass and recycle streams.

**To:**

CHE 20500 - Chemical Engineering Calculations  
Sem 1 and 2, Lec 3, Recitation 1, Cr. 4

**Restrictions:** Must be enrolled in the School of Chemical Engineering

**Prerequisites:**

ENGR 12600, MA 16500, PHYS 17200,

**Concurrent Prerequisites:** CHM 11600

Quantitative application of steady-state mass and energy balances to solve problems involving multi-component systems and multi-unit chemical processes. Single-component and multi-component phase equilibria, single reaction and multiple reaction stoichiometry, coupled mass and energy balances, chemical processes involving bypass and recycle streams.

APPROVED FOR THE FACULTY  
OF THE SCHOOLS OF ENGINEERING  
BY THE ENGINEERING  
CURRICULUM COMMITTEE

ECC Minutes #25

Date 4/27/10

Chairman ECC R. Cipia



**Reason:** CHE 20500 is the first CHE course that is taken by students accepted into the School of Chemical Engineering, and as such provides the foundation needed for all subsequent chemical engineering courses. Furthermore, School of Chemical Engineering policy requires a "C" or higher for chemical engineering majors to enroll in any subsequent chemical engineering course. The additional credit hour will be used to convert the currently optional PSO (Practice, Study, Observation) into a required recitation session. Hence, all students will benefit from the additional review of lecture material and further problem solving exercises that are included in the recitation session.

*A. Varma*

A. Varma, Head  
School of Chemical Engineering  
2/11/10

