

TO: The Faculty of the College of Engineering

FROM: The Faculty of the School of Chemical Engineering

RE: Change to Existing Graduate Course, CHE 61100 Advanced Topics In Chemical Engineering Thermodynamics, change in title and description.

The faculty of the School of Chemical Engineering have approved the following changes to an existing course. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From: CHE 61100 - Advanced Topics In Chemical Engineering Thermodynamics
Sem 2, Lec 3, Cr. 3

Prerequisites: CHE 61000

Restrictions: Must be enrolled in one of the following Levels: Graduate

Description: Partition and distribution function descriptions of fluids. Molecular interactions by dispersion and electrostatic forces. Monte Carlo and molecular dynamics simulation of statistical ensembles. Fluid surfaces and macromolecules. Offered in alternate years. Prerequisite: CHE 61000. Typically offered Spring.

To: CHE 61100 – Molecular Thermodynamics
Sem 2, Lec 3, Cr. 3

Prerequisites: CHE 61000

Restrictions: Must be enrolled in one of the following Levels: Graduate

Description: This course aims at providing a systematic treatment of the microscopic foundation of thermodynamics as well as a working knowledge of the statistical formalism needed to predict macroscopic properties from molecular interactions. Topics covered include kinetic theory of gases, statistical-mechanical ensembles and their correspondence with thermodynamics, ideal and imperfect gases, distribution function theory of liquids, lattice models of liquid and polymer solutions, and molecular simulation methods. Generally offered in alternating years.

Reason: The current course title and description for CHE 61100 does not adequately represent the subject matter that has been presented during the last several offerings (S11, S08, S05, S03), and fails to properly advertise the content of this course to graduate students outside of the CHE department.

A Varma

Arvind Varma, Head
School of Chemical Engineering

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

ECC Minutes _____

Date _____

Chairman ECC _____

7/30/2012

R. Gupta

CHE 6100

RECEIVED

NOV 22 2013

Office of the Registrar
FORM 40G REV. 4/10

**APPROVED
COPY**

PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF A GRADUATE COURSE
(50000-60000 LEVEL)

DEPARTMENT School of Chemical Engineering EFFECTIVE SESSION Fall 2012 2014.0 OFFICE OF THE REGISTRAR

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

<input type="checkbox"/> 1. New course with supporting documents (complete proposal form)	<input type="checkbox"/> 7. Change in course attributes
<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 checked="" type="checkbox"/> 9. Change in course description
<input type="checkbox"/> 4. Change in course number	<input type="checkbox"/> 10. Change in course requisites/restrictions
<input checked="" type="checkbox"/> 5. Change in course title	<input type="checkbox"/> 11. Change in semesters offered
<input type="checkbox"/> 6. Change in course credit/type	<input type="checkbox"/> 12. Transfer from one department to another

PROPOSED: Subject Abbreviation <u> </u> Course Number <u> </u> Long Title <u>Molecular Thermodynamics</u> Short Title <u>Molecular Thermodynamics</u> <small>Abbreviated title will be entered by the Office of the Registrar if omitted. (30 CHARACTERS ONLY)</small>	EXISTING: Subject Abbreviation <u>CHE</u> Course Number <u>61100</u>	TERMS OFFERED Check All That Apply: <input type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring <input type="checkbox"/> Summer CAMPUS(ES) INVOLVED <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
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CREDIT TYPE	COURSE ATTRIBUTES: Check All That Apply
1. Fixed Credit: Cr. Hrs. <u>3</u>	1. Pass/Not Pass Only <input type="checkbox"/>
2. Variable Credit Range: Minimum Cr. Hrs <u> </u> (Check One) To <input type="checkbox"/> Or <input type="checkbox"/> Maximum Cr. Hrs <u> </u>	2. Satisfactory/Unsatisfactory Only <input type="checkbox"/>
3. Equivalent Credit: Yes <input type="checkbox"/> No <input type="checkbox"/>	3. Repeatable <input type="checkbox"/>
4. Thesis Credit: Yes <input type="checkbox"/> No <input type="checkbox"/>	Maximum Repeatable Credit: <u> </u>
	4. Credit by Examination <input type="checkbox"/>
	5. Special Fees <input type="checkbox"/>
	6. Registration Approval Type Department <input type="checkbox"/> Instructor <input type="checkbox"/>
	7. Variable Title <input type="checkbox"/>
	8. Honors <input type="checkbox"/>
	9. Full Time Privilege <input type="checkbox"/>
	10. Off Campus Experience <input type="checkbox"/>

Schedule Type	Minutes Per Mtg	Meetings Per Week	Weeks Offered	% of Credit Allocated	Cross-Listed Courses
Lecture					
Recitation					
Presentation					
Laboratory					
Lab Prep					
Studio					
Distance					
Clinic					
Experiential					
Research					
Ind. Study					
Pract/Observ					

COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS):

This course aims at providing a systematic treatment of the microscopic foundation of thermodynamics as well as a working knowledge of the statistical formalism needed to predict macroscopic properties from molecular interactions. Topics covered include kinetic theory of gases, statistical-mechanical ensembles and their correspondence with thermodynamics, ideal and imperfect gases, distribution function theory of liquids, lattice models of liquid and polymer solutions, and molecular simulation methods. Generally offered in alternating years.

Calumet Department Head _____ Date _____	Calumet School Dean _____ Date _____	Calumet Undergrad Curriculum Committee _____ Date _____
Fort Wayne Department Head _____ Date _____	Fort Wayne School Dean _____ Date _____	Fort Wayne Chancellor _____ Date _____
Indianapolis Department Head _____ Date _____	Indianapolis School Dean _____ Date _____	Undergrad Curriculum Committee _____ Date _____
<u>A Varma</u> _____ Date <u>7/11/2012</u>	North Central School Dean _____ Date _____	Date Approved by Graduate Council _____
West Lafayette Department Head _____ Date _____	West Lafayette College/School Dean _____ Date <u>11/26/13</u>	Graduate Council Secretary <u>Tina L. Reese</u> _____ Date <u>11/20/13</u>
Graduate Area Committee Convener _____ Date _____	Graduate Dean _____ Date _____	West Lafayette Registrar <u>Sandra Schaffner</u> _____ Date <u>12/2/13</u>

OFFICE OF THE REGISTRAR

(Grad Form 40G [Excel format] - Does not include the Graduate Council's required supporting document. See pdf version of Form 40G)

LAM 11/26/13