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.

Arvind Varma, Head
School of Chemical Engineering

Approved for the Faculty of the Schools of Engineering by the Engineering Curriculum Committee

ECC Minutes 7/30/2012
Date
Chairman ECC
PURDUE UNIVERSITY
REQUEST FOR ADDITION, EXPIRATION,
OR REVISION OF A GRADUATE COURSE
(50000-60000 LEVEL)

DEPARTMENT: School of Chemical Engineering
EFFECTIVE SESSION: Fall 2012

INSTRUCTIONS: Please check the items below which describe the purpose of this request:
1. New course with supporting documents (complete proposal form)
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/type
7. Change in course attributes
8. Change in instructional hours
9. Change in course description
10. Change in course requisites/restrictions
11. Change in semesters offered
12. Transfer from one department to another

PROPOSED:
Subject Abbreviation: CHE
Course Number: 61100
Long Title: Molecular Thermodynamics
Short Title: Molecular Thermodynamics

EXISTING:
Subject Abbreviation: CHE
Course Number: 61100
Long Title: Molecular Thermodynamics
Short Title: Molecular Thermodynamics

COURSES OFFERED:
Check All That Apply:
- Fall
- Spring
- Summer

CAMPUS(ES) INVOLVED:
- Calumet
- Cont Ed
- Ct. Wayne
- Indianapolis

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

CREDIT TYPE:
1. Fixed Credit: Cr. Hrs.: 3
2. Variable Credit Range: Minimum Cr. Hrs. To Maximum Cr. Hrs.
3. Equivalent Credit: Yes
4. Thesis Credit: Yes

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

MEETINGS PER WEEK:

WEEKS OFFERED:

% OF CREDIT ALLOCATED

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

Alvaro: 7/1/2012

North Central Department Head: Date
North Central School Dean: Date
Date Approved by Graduate Council:

West Lafayette Department Head: Date
West Eby: Date
Graduate Council: Date

Savannah: 12/2/13

Graduate Area Committee Convener: Date
Graduate Dean: Date
West Lafayette Registrar: Date

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)