

Flow up of implementation celli pass play

Course Instructor	Anees A. Khadom				
E-mail	aneesdr@yahoo.com				
Title	Principles of Chemical Engineering (II)				
Course Coordinator	Annually				
Course Objective	This course is intended to serve as an introduction to the principles and basics of energy balance and how to deal with energy changes.				
Course Description	<ol style="list-style-type: none"> ١. Introduce the principles and calculation of energy balances. ٢. Assist in methods of problems solving. ٣. Review certain principles of applied physical chemistry. ٤. Study the behavior of gases, liquids, and solids. ٥. Mathematical modeling of some problems of unsteady material and energy balance. 				
Textbook	Himmelblau David M. "Basic Principles and Calculations in Chemical Engineering". ٧th Ed. ٢٠٠٣.				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	٣٠٪	٠	١٠٪	-	٦٠٪
General Notes	This subject is very important in understanding the principles and calculations of chemical engineering.				

Republic of Iraq
The Ministry Of Higher Education
& Scientific Research



University:
College:
Department:
Stage:
Lecturer name:
Qualification:
Place of work

Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
١	٢٢ and ٢٤, Sep. ٢٠١٤	General review of material balance		
٢	٢٩, Sep. ٢٠١٤ ٠١, Oct. ٢٠١٤	Units and dimensions of energy and heat		
٣	٠٦ and ٨, Oct. ٢٠١٤	Relations of ideal gases		
٤	١٣ and ١٥, Oct. ٢٠١٤	Relations of real gases, van der Waal's equation,		
٥	٢٠ and ٢٢, Oct. ٢٠١٤	critical states and compressibility, mixtures of non –ideal gases,		
٦	٢٧ and ٢٩, Oct. ٢٠١٤	Work, heat, potential and kinetic energy		
٧	٣ and ٥, Nov. ٢٠١٤	Energy balance		
٨	١٠ and ١٢, Nov. ٢٠١٤	Energy balance		
٩	١٧ and ١٩, Nov. ٢٠١٤	Energy balance		
١٠	٢٤ and ٢٦, Nov. ٢٠١٤	heat capacity,		
١١	٠١ and ٣, Dec. ٢٠١٤	latent heat of vaporization,		
١٢	٠٨ and ١٠, Dec. ٢٠١٤	latent heat of vaporization		
١٣	١٥ and ١٧, Dec. ٢٠١٤	Energy balance with chemical reactions,		
١٤	٢٢ and ٢٤, Dec. ٢٠١٤	Energy balance with chemical reactions		
١٥	٢٩ and ٣١, Dec. ٢٠١٤	Energy balance with chemical reactions		
١٦	٠٥ and ٠٧, Jun. ٢٠١٤	Heat of Solutions and mixtures		
Half – year break				

17	16 and 18, Feb. 2010	enthalpy change for mixtures,		
18	23 and 20, Feb. 2010	enthalpy diagram,		
19	02 and 04, Mar. 2010	Enthalpy - concentration		
20	09 and 11, Mar. 2010	humidity chart,		
21	23 and 20, Mar. 2010	Degree of freedom		
22	30, Mar. 2010 06, April, 2010	Flow sheets, material, and energy balance for complete projects.		
23	08 and 13, April 2010	Steam tables		
24	10 and 20, April 2010	Mechanical energy balance and efficiency		
25	21 and 27, April 2010	Material balance of unsteady state without chemical reactions		
26	29, April, 2010 04, May, 2010	Energy balance of unsteady state without chemical reactions		
27	06 and 11, May, 2010	Material balance of unsteady state with chemical reactions		
28	13 and 18, May, 2010	Material balance of unsteady state with chemical reactions		
29	20 and 20, May, 2010	Energy balance of unsteady state with chemical reactions		
30	27, May, 2010 01 and 03, June, 2010	Energy balance of unsteady state with chemical reactions		
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INSTRUCTOR Signature:

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