

BS Chemistry Semester-VI					
Programme	BS Chemistry	Course Code	Chem-365	Credit Hours	3
Course Title	Allied Chemical industries	Course Type	Major (Elective)		
Course Introduction					
<p>It will help the students to understand the working in Allied Chemical Industries starting from the raw material to finished end product.</p> <p>Cement Industries: Glossary of Cement Terms, Raw materials used for cement manufacturing, Dry process and Wet process, Semi-wet process, Types of Cement, Hydration of Cement, Properties of Cement, Testing of Cement, and Allied Cementing materials</p> <p>Glass Glass – Physical and Chemical properties of glass, types of glass, raw materials used for glass, manufacturing of special glass.</p> <p>Ceramics Ceramics – Classification and properties of ceramics, raw materials, manufacturing of ceramics, application of colors to pottery, refractory.</p>					
Learning Outcomes					
<p>On the completion of the course:</p> <ul style="list-style-type: none"> • Students are expected to become familiarized with the concepts of general chemistry • This will enable them qualify for basic to moderate level jobs involving general knowledge of chemistry • The obtained knowledge shall also enable the students to enter into various entrepreneurial activities involving general introduction to chemistry 					
Course Content				Assignments/Readings	
Week 1	Glossary of Cement Terms			Class Based learning/tests	
Week 2	Types of Cement			Class Based learning/tests	
Week 3	Raw materials			Class Based learning/tests	
Week 4	Dry process and Wet process, Semi-wet process			Class Based learning/tests	
Week 5	Dry process and Wet process, Semi-wet process			Class Based learning/tests	
Week 6	Dry process and Wet process, Semi-wet process			Class Based learning/tests	
Week 7	Testing and Setting of Cement			Written Assignment	
Week 8	Testing and Setting of Cement			Class Based learning/tests	
Week 9	Midterm Assessment			Class Based learning/tests	
Week 10	Glass – Physical and Chemical properties of glass, types of glass			Class Based learning/tests	
Week 11	Raw materials used for glass,			Class Based learning/tests	
Week 12	Manufacturing of special glass.			Class Based learning/tests	
Week 13	Ceramics – Classification and properties of ceramics			Class Based learning/tests	
Week 14	Raw materials			Class Based learning/tests	

Week 15	Manufacturing of ceramics	Quiz	
Week 16	Application of colors to pottery, refractory.	Class Based learning/tests	
Textbooks and Reading Material			
<ol style="list-style-type: none"> 1. Applied Chemistry, Haq Nawaz Bhatti and Muhammad Salman, 2017, Caravan Book Publisher, Pakistan. 2. Water Supply and Sewerage, T.J.McGhee, McGraw Hill Book Co. New York.(1991) 3. Hand Book of Industrial Chemicals, By SIRI Board of Consultants and Engineers, 4. Shereve's Chemical Process Industries, 5th Ed.1975 by G.T.Austin McGraw Hill Book Co. New York. 5. Industrial chemistry, B. K. Sharma Krishna Prakashan Media (P) Ltd., Ed-15 (2006) 6. Applied.....? 			
Teaching Learning Strategies			
<ol style="list-style-type: none"> 1. Lectures 2. Group Discussion 3. Laboratory work 4. Seminar/ Workshop 			
Assignments: Types and Number with Calendar			
<ol style="list-style-type: none"> 1. Written 7th week 2. Quiz 15th week 			
Assessment			
Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3.	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.