

Republic of Iraq
The Ministry Of Higher
Education
& Scientific Research

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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

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Course Instructor	Pfof. Ass Dr Suhad Mohammed Abd				
E-mail	suhadukm@yahoo.com				
Title	Concrete Technology				
Course Coordinator	Pfof. Ass Dr Suhad Mohammed Abd				
Course Objective	Teaching the students basic concepts about the constituents of concrete and their properties , cement manufacturing and its characteristics, design of concrete mixes.				
Course Description	Basic concepts; concrete making materials, their properties, cement manufacturing process, cement characteristics and tests, concrete properties and mix design.				
Textbook	Properties of concrete By A.M. Neville 1995				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	As(40%)	As(10%)	As(5%)	5%-	As(40%)
General Notes	The course is 1 year course so the term test (40%) includes (20%) mid-term exam and (10%) exam of first semester and (10%) for the second semester				

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University: Diyala
College: Engineering
Department: Civil engineering
Stage: Second year
Lecturer name: Suhad M. Abd
Qualification: Ass. Prof. Dr
Place of work: Civil eng. Depart.

Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
1	٢٠١٤/٩/٢٤	Portland cement/historical note , Manufacture of Portland cement &	Cement: Standard consistence test.	
2	٢٠١٤/١٠/١	chemical composition of Portland cement .	Initial and final setting time test.	
3	٢٠١٤/١٠/٨	Hydration of cement.	Soundness test.	
4	٢٠١٤/١٠/١٥	Hydration of cement.	Fineness test.	
5	٢٠١٤/١٠/٢٢	Volume of product of hydration.	A-air permeability method.	
6	٢٠١٤/١٠/٢٩	Volume of product of hydration.	B-Blaine method.	
7	٢٠١٤/١١/٥	Tests on physical properties of cement.	compression strength of cement mortar test	
8	٢٠١٤/١١/١٢	Tests on physical properties of cement.	Aggregate:sampling of aggregate. Sieve analysis of aggregate.	
9	٢٠١٤/١١/١٩	Types of Portland cement, ordinary Portland cement,	-flakiness and elongation index of aggregate test.	
10	٢٠١٤/١١/٢٦	special type of Portland cement, rapid-hardening Portland cement, low heat Portland cement,	Specific gravity (relative density)	
11	٢٠١٤/١٢/٣	Sulfate-resisting cement, white cement, natural cement,	Absorption of aggregate test.	

12	२.१६/१२/१०	expanding cement, aluminous cement .	Bulk density and spaces of aggregate test.	
13	२.१६/१२/१७	Aggregate, general classification of agg. , properties of agg.	Moisture content of aggregate test.	
14	२.१६/१२/२६	Bulking of sand, deleterious substances in aggregate.	Impact value of aggregate test.	
15	२.१६/१२/३१	Soundness of aggregate, alkali-agg. Reaction.	Curching value of aggregate test.	
16	२.१०/१/११	Sieve analysis: grading curves; fineness modulus grading requirements, practical grading, grading of fine& coarse agg.	Organic impurities.	
17	२.१०/२/६	Fresh concrete; consistence of concrete.	Concrete:mixing and making optimum fresh concrete in lap.	
18	२.१०/२/११	Workability; measurements of workability, factors affecting workability.	Concrete:mixing and making optimum fresh concrete in lap.	
19	२.१०/२/१८	Segregation-bleeding-mixing of concrete.	Flow.	
20	२.१०/२/२०	Compaction of concrete,	Kelly ball penetration test.	
21	२.१०/३/६	concerting in hot weather.	Slump test.	
22	२.१०/३/११	Strength of conc. &types.	Compacting factors test.	
23	२.१०/३/१८	Factors effecting on strength of conc. ,	Remoulding test.	
24	२.१०/३/२०	factors affect on testing of hardened of conc.	Vebe test.	
25	२.१०/६/१	Curing of concrete and types of curing.	Density of fresh concrete test.	
26	२.१०/६/८	Modulus of elasticity of passion ratio.	Compressive strength of concrete test.	
27	२.१०/६/१०	Volumetric change ,creep ,shrinkage	Flexial strength of concrete test.	
28	२.१०/६/२२	Mixing design, American method of mix design & B.S method.	Density fresh concrete test.	
29	२.१०/६/२९	Mixing design, B.S method.	Test the compressive strength that equals the cubic compressive strength by using parts of prisms	
30	२.१०/०/६	Non-destructive test ,pulse velocity.	Test the compressive strength that equals the	

			cubic compressive strength by using parts of prisms	
31	۲۰۱۳/۵/۱۳	Discussion of report in the tech . of concrete.	Discussions and exams	
32	۲۰۱۳/۵/۱۹	Discussion of report in the tech . of concrete.	Discussions and exams	

INSTRUCTOR Signature:

Dean Signature: