

University of Asia Pacific

Department Name

Lesson Plan

Course Code & Title:	CE-202, Engineering Materials Lab
Semester:	Fall, 2015
Teacher:	Ariful Hasnat
Office/Room:	Room: 205
Consultation/Contact time:	Day 1 Day 2 Day 3 Day 4 Day 5 2:00-5:00 9:30-12:00 ----- 2:00-4:30 9:00-1:00
E-mail:	hasnat@uap-bd.edu
Mobile:	01711 074 595
Course outline:	General discussion on Brick, Cement, Fine aggregate, Coarse Aggregate and Concrete; Determination of Normal Consistency of Cement by Vicat's Apparatus; Determination of the Initial Setting Time of Cement with Vicat's Apparatus; Test for Direct Compressive Strength of Cement Mortar; Sieve Analysis of Fine and Coarse Aggregate; Specific Gravity and Absorption Capacity of Fine Aggregate; Specific Gravity and Absorption Capacity of Coarse Aggregate; Unit Weight and Void in Aggregate, Resistance to Degradation of Small Sized Coarse Aggregate by Abrasion and Impact of the Los Angeles Abrasion Machine; Compressive Strength of Cylinder and Cube Concrete Specimens; Tests of Bricks: Shape, Size, Surface Hardness, Absorption, Unit Weight, Efflorescence and Compressive Strength.

Teaching method: Lectures and laboratory works

Prerequisites: Not Applicable

Course / Class schedule

Experiment No.	Title of the Experiment
1	Determination of the Normal Consistency of Cement with Vicat's Apparatus
2	Determination of the Initial Setting Time of Cement with Vicat's Apparatus
3	Test for Direct Compressive Strength of Cement Mortar
4	Sieve Analysis of Fine and Coarse Aggregate
5	Specific Gravity and Absorption Capacity of Fine Aggregate
6	Specific Gravity and Absorption Capacity of Coarse Aggregate
7	Unit Weight and Void in Aggregate
8	Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact of the Los Angeles Machine
9	Compressive Strength of Cylindrical and Cube Concrete Specimens
10	Tests of Bricks: Shape, size, Surface Hardness, Absorption, Unit Weight, Efflorescence, and Compressive Strength

Basic text(s): Handouts provided in the Class

Reference text(s): Properties of Concrete - A. M. Neville
Engineering Materials - M. A. Aziz
<http://www.uap-bd.edu/ce/hasnat/teaching.htm>

Additional reading material: ASTM standards

Assessment methods:

Component	Weight/percentage
Quiz 1	30
Quiz 2	30
Class participation	10
Report	20
Viva	10
Total	100%

Grading system:

Grading system to be followed for the course

Numerical Grade	Letter grade	Grade point
80% and above	A ⁺	4.00
75%to less than 80%	A	3.75
70%to less than 75%	A ⁻	3.50
65%to less than 70%	B ⁺	3.25
60%to less than 65%	B	3.00
55%to less than 60%	B ⁻	2.75
50%to less than 55%	C ⁺	2.50
45%to less than 50%	C	2.25
40%to less than 45%	D	2.00
Less than 40%	F	0.00
Exemption	E	---
Incomplete Work	I	---
Satisfactory	S	---

Students' responsibilities: Must attend the classes; follow the instructions provided by the teacher; practice the daily work done in the class, attend the quizzes.