

EBB 212/3 – RAW MATERIALS AND STRUCTURAL CERAMICS

<p>Lecture Time :</p> <p>1) 10.00am – 11.00am (1 hour) Monday 2) 9.00am – 11.00am (2 hours) Thursday</p> <p>Contribution of Assessments: Final Examination: 70% Coursework: 30%</p> <ul style="list-style-type: none"> • Assignments (15%) • Tests (15%) 	<p>Lecturers:</p> <p>1) Dr. Yanny Marliana Baba Ismail (YMBI) 2) Prof. Dr Ahmad Fauzi Mohd Noor (AFMN) 3) Dr. Khairul Anuar Shariff (KAS)</p>
---	--

COURSE OUTCOME		PROGRAMME OUTCOME	MEASURING TOOLS
CO1	Able to describe various raw materials (natural and synthesized) for ceramic industries (C2)	PO1	Examination/Test/Assignment /Quiz
CO2	Able to apply fundamental knowledge on ceramic raw materials and the relationship between the processing parameters with the properties of the products in producing ceramics (C3)	PO1	Examination/Test/Assignment /Quiz
CO3	Able to analyze the relationship between the processing parameters with the properties of the products (C4)	PO2	Examination/Test/Assignment /Quiz

ACTION FOR IMPROVEMENT FROM ACADEMIC YEAR 2015/2016

<p>Comment : Number of students failed Q6 (related to synthesis method) is high.</p>	<p>Action for improvement: More discussion (i.e. visual presentation) on synthesis methods will be conducted.</p>
--	---

WEEK	LECTURER	TOPICS	ACTIVITY / ASSESSMENTS	COURSE OUTCOME	OTHER CLASS ACTIVITY
1	AFMN	<ul style="list-style-type: none"> • Introduction to ceramic raw materials • Silica as ceramic raw material 		CO1	
2	AFMN	Clay and Clay minerals	Assignment	CO1	
3	AFMN	Classification and properties of Clays		CO1	
4	AFMN	Refractory raw materials and other ceramic raw materials		CO1	
5	YMBI	Chemical synthesis of ceramic powders: three main categories – solid state reaction, liquid state and vapour phase reactions		CO2	
6					
7	YMBI	Materials for oxide and non-oxide ceramics		CO1	
8	MID TERM BREAK				
9	YMBI	Characterizations of ceramic raw materials	Test 1 (AFMN & YMBI)	CO1 CO2	
10	KA	<ul style="list-style-type: none"> • Mixing: Introduction, mechanism and methods • Additives 	Assignment 2 (Industrial Report)	CO2	Talk from industry – CRC
11	KA	<ul style="list-style-type: none"> • Grinding and milling an introduction • Methods for grinding and milling; Media and types of grinding. Ball mill. 		CO2	Industrial visit (date tbc)
12					
13	KA	Structured Clay Products: Introduction, general properties. Facing Materials and their properties		CO3	
14	AFMN	Cement: Components, types, process and	Test 2	CO3	

Teaching Plan Form

Academic Session : Semester 2 2016/2017

Revision : 001/2017

		properties. Bogue Calculation	(AFMN & KAS)		
15	AFMN	Concrete Components, process and properties.		CO3	
16	STUDY WEEK				
17-19	EXAMINATION				

***Other class activity: Active learning, trip to industry, industry talk, etc. with no marks allocation**

Prepared by:	Endorsed by:	Approved by:
Course Coordinator	Program Chairman	Deputy Dean (Academic)
Date: 17/02/2017	Date:	Date: