



UNIVERSITI TEKNOLOGI MARA

CDT321: FIRING PRACTICE

Course Name (English)	FIRING PRACTICE APPROVED
Course Code	CDT321
MQF Credit	2
Course Description	The kiln is a tool, a device, an insulated box that concentrates and directs heat to the pots. This course concentrates on kiln theory and practical based on history, functions, construction, kiln components and process.
Transferable Skills	Ceramic kilns operation, rapid ceramic firing techniques
Teaching Methodologies	Lectures, Demonstrations, Practical Classes, Presentation
CLO	CLO1 Recognize the fundamental of history, functions and types of kiln. CLO2 Demonstrate firing process and procedures. CLO3 Identify problem, safety and precaution in firing practice.
Pre-Requisite Courses	No course recommendations
Topics	
1. Introduction of firing practice 1.1) Course Brief 1.2) Project Brief 1.3) Introduction to Firing Practice	
2. Introduction of kiln 2.1) History of kiln 2.2) Types of kiln 2.3) Planning in built kiln	
3. Kiln Construction 3.1) Refractory Materials 3.2) Kiln Design	
4. Kiln Construction 4.1) Kiln Components	
5. Firing process 5.1) Loading and Unloading the kiln	
6. Firing process 6.1) Biscuit Firing and glaze firing 6.2) Oxidation and reduction Firing	
7. Heat and fuel 7.1) Liquid 7.2) Gases 7.3) Wood	
8. Firing Technique 8.1) Setting the kiln 8.2) Profile of firing	
9. Kiln Furniture and tools 9.1) Slab 9.2) Props 9.3) Shelves	

10. Temperature measurements 10.1) Pyrometric Cones 10.2) Thermocouple 10.3) Optical Pyrometric 10.4) 11.4 Buller's Ring
11. Safety Precautions 11.1) Before firing 11.2) During firing 11.3) After firing
12. Alternative Firing Technique 12.1) Introduction to Raku kiln and firing 12.2) Pit Firing 12.3) Wood Firing
13. Alternative firing 13.1) Raku kiln
14. Troubleshooting 14.1) Problem in Firing Process and Industry

Assessment Breakdown	%
Continuous Assessment	60.00%
Final Assessment	40.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	assignment 1	30%	CLO1
	Assignment	assignment 2	30%	CLO1

Reading List	Recommended Text
	<ul style="list-style-type: none"> • Frank Hamer, Janet Hamer 2004, <i>The Potter's Dictionary of Materials and Techniques</i>, University of Pennsylvania Press [ISBN: 0713664088] • Frederick L. Olsen 2001, <i>The Kiln Book</i>, A & C Black [ISBN: 0713660600] • Ray Hemachandra 2011, <i>500 Raku</i>, Lark Books (NC) [ISBN: 9781600592942] • Jan Peterson, Susan Peterson 2012, <i>The Craft and Art of Clay</i>, Laurence King Publishing [ISBN: 9781856697286] • James C. Watkins, Paul Andrew Wandless 2004, <i>Alternative Kilns & Firing Techniques</i>, Lark Books [ISBN: 1579904556] • Nils Lou 1998, <i>The Art of Firing</i>, A&C Black [ISBN: 0713647418]

Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources