



Course Specifications

Course Title:	Experimental studies in glaze and glass coatings
Course Code:	414 - AAD-3
Program:	Bachelor in Applied Arts
Department:	Applied Arts
College:	Faculty of Architecture & Design
Institution:	Jazan University

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A. Course Identification

1. Credit hours:
2. Course type
a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: Level 7/4 rd Year
4. Pre-requisites for this course (if any): None
5. Co-requisites for this course (if any): None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	4	100%
2	Blended	-	-
3	E-learning	-	-
4	Correspondence	-	-
5	Other	-	-

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	Lecture	2 x 15= 30
2	Laboratory/Studio	
3	Tutorial	
4	Others (Practical)	2 x 15= 30
	Total	60
Other Learning Hours*		
1	Study Theoretical study (1 hour for 1 CH) = 1x2x15 = 30 Practical (0.5 hour for 1 CH) = 0.5x2x15 = 15	45
2	Assignments 1 continuous assessment for 1 CH = 1 x 3= 3 1 Mid Term Examination (4 hour) 1 final exam (Theoretical 2 hours + Practical 2 hours) = 4	11
3	Library Preparation for 0.5 hour 1 CH = 0.5 x 3= 1.5	1.5
4	Projects/Research Essays/Theses 4 Hours for1 CH = 4 x 3= 12	12
5	Others(specify)	
	Total	69.5
	All total	129.5

* All total / 40 = CH or approximated to CH

$$129.5/ 40 = 3.24 \approx 3 \text{ (CH)}$$

*The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

Definition and classification anti and ceramic and glass objects and characteristics of raw materials within the installed and its role in checking the stages and methods of preparation, and the decision to provide practical experience in some of the special modules and glass powder coating, and address the shortcomings of the coating Glass objects and identify its causes.

2. Course Main Objective

The student remembers the basic types of **ceramic's glazes**, and glass and the characteristics of each type, and also recognizes the decorations with colored - **coating** before and after the drought and methods of applying them to ceramic **product** old and recent. It also recognizes the different types of ceramic and glass **bodies** and their ability to collect information in the subjects of the course, Raw materials and their effect on mixtures (porcelain and glass). And analysis of the resulting defects and their causes, and distinguished between the techniques of decoration and beautification of ceramic and glass works.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
1.1	Demonstrate knowledge of the ingredients and formulations of the different characteristics of different recipes of ceramics, glass.	K1
1.2	Defined the technical and plastic characteristics of the glass coatings and the methods of their use on ceramic and glass products.	K2
1.3		
2	Skills :	
2.1	Apply creative skills of the individual and collective level in the use of different types of coatings suitable for ceramic and glass objects.	S3
2.2	Interpret the problems and solutions to the colors resulting from the effect of the different oxides in the composition of the ceramic and glass bodies on the color of the finished product.	S2
3	Competence:	
3.1	Evaluate ceramic and glass mixtures and surface treatment methods with international standard specifications and apply them when designing the product.	C3

C. Course Content

No	List of Topics	Contact Hours
1	- Raw materials used in Porcelain tile and their characteristics	8
2	- Effect of different materials in mixtures on the color of the Porcelain tile	6
3	Methods of analysis and measuring properties of Porcelain mixtures	4
4	-Raw materials used in glass objects (network installation-alkaline elements)	6
5	- The installed components for network installation-intermediate-colored items	8
6	- coating (defined-fitted-processing methods-methods applied)	8
7	- glass coating components (installed)-subdivisions-methods applied	8
8	- Methods of using glass coating on the production line	8

9	- Thermal glass coatings on glass products	4
Total		60

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge		
1.1	Demonstrate knowledge of the ingredients and formulations of the different characteristics of different recipes of ceramics, glass.	<ul style="list-style-type: none"> - Discussion of the wave. - Brainstorming. - Open debate. 	<ul style="list-style-type: none"> - direct method (objective test) by Test specification table
1.2	Defined the technical and plastic characteristics of the glass coatings and the methods of their use on ceramic and glass products.		
...			
2.0	Skills		
2.1	Apply creative skills of the individual and collective level in the use of different types of coatings suitable for ceramic and glass objects.	<ul style="list-style-type: none"> - Brainstorming. - Self-education - Practical 	<ul style="list-style-type: none"> - direct method (Classroom assignment)
2.2	Interpret the problems and solutions to the colors resulting from the effect of the different oxides in the composition of the ceramic and glass bodies on the color of the finished product.		
...			
3.0	Competence		
3.1	Evaluate ceramic and glass mixtures and surface treatment methods with international standard specifications and apply them when designing the product.	<ul style="list-style-type: none"> - Creative thinking - Collective cooperative education 	<ul style="list-style-type: none"> - Operational projects. - Exercises executive.
3.2			
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Continuous evaluation	15	10%
2	Mid Term 1&2	8 - 12	20%
3	Practical Exercises	Periodically	30%
4	Practical exam	16	15%
5	Theoretical exam	16	25%
Total			100%

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

Individual consultations and academic advice is supposed to allocate a minimum of 6 hours per week.
Tutorial for week students is supposed to allocate a minimum of 4 hours per week

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	- فوزي عبد العزيز القيسي: تقنيات الخزف والزجاج - دار الشرق - ٢٠٠٣ - محمد زينهم : تكنولوجيا فن الزجاج - الهيئة المصرية العامة للكتاب - ١٩٩٥ م.
Essential References Materials	- Hua- Tay Lin, Dongming Zhu, Advanced Ceramic Coatings and Interfaces Ceramic Engineering, Volume 3, 2009 - Fauzi Abdul Aziz Qaisi: ceramic techniques and glass – Dar El shorouk 2003 - John kersoil, Mohamed Amer subtitles Eng, Chinese porcelain and its impact on the West, Arab Cairo book House, 1998 - John kersoil, Mohamed Amer subtitles Eng, Chinese porcelain and its impact on the West, Arab Cairo book House, 1998 - Hussein Darwish: glass specifications for industrial applications, National Research Center-Science magazine-issue 205-July 1997 m
Electronic Materials	- Critical Ceramics http://www.criticalceramics.org/ - Ceramic Art http://www.ceramicart.com.au/index.shtml
Other Learning Materials	- Presentation

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	* Classrooms with 40 circular tables. * Lab porcelain and glass with 25 students and equipped
Technology Resources (AV, data show, Smart Board, software, etc.)	- Computer, Projectors - Electronic board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	- Technical materials and tools such as mud and water and wooden utensils for sculpture - Basins and sinks for washing and cleaning tools

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators		Evaluation Methods
Effectiveness of teaching and assessment	Students	indirect method - On line system course survey	direct method
	Peer Reviewer or Head of Department		Peer OR Head of Department observation
Quality of learning resources	Students	- On line system course survey	
	Peer Reviewer or Head of Department		Peer OR Head of Department Assessment
Achievement of course learning outcomes	Students	Course LO survey	
	Program Assessment Committee		Theoretical and practical tests According to Test specification table

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	