



Course Specifications

Course Title:	Glass Production
Course Code:	422- AAD-3
Program:	Bachelor in Applied Arts
Department:	Applied Arts
College:	Faculty of Architecture & Design
Institution:	Jazan University

Table of Contents

A. Course Identification	3
6. Mode of Instruction (mark all that apply)	3
B. Course Objectives and Learning Outcomes	4
1. Course Description	4
2. Course Main Objective.....	4
3. Course Learning Outcomes	4
C. Course Content	6
D. Teaching and Assessment	6
1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods	6
2. Assessment Tasks for Students	6
E. Student Academic Counseling and Support	6
F. Learning Resources and Facilities	6
1. Learning Resources	6
2. Facilities Required.....	6
G. Course Quality Evaluation	7
H. Specification Approval Data	7

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:			
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	5 hours	100 %
2	Blended	-	0 %
3	E-learning	-	0 %
4	Correspondence	-	0 %
5	Other	-	0 %

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)	3 x 15 = 45
	Total	75
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 final exam (Theoretical 2 hours + Practical 3 hours) = 5	8
3	Library Preparation for 0.5 hour 1 CH = 0.5 x 3 = 1.5	1.5
4	Projects/Research Essays/Theses 4 Hours for 1 CH = 4 x 2 = 8	8
5	Others(specify)	
	Total	62.5
	All total	137.5

* All total / 40 = CH or approximated to CH

$$137.5 / 40 = 3.44 \approx 3 \text{ (CH)}$$

*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

- This course aims to familiarize students with scientific foundations and practical experiences with different techniques for glass production, as it aims to familiarize students with scientific basis concerning ways of burning glass and learn about the different types of incinerators and their advantages and disadvantages

2. Course Main Objective

- Students learn about different ways to produce stained glass in a variety of ways. It also learns about different cutting methods and cutting machines in glass, as well as the necessary precautions that must be met and followed up for safety and safety when using furnaces. This is in addition to the ability to expand the knowledge of the nature of the use of glass furnaces as well as the student's recognition of the importance of the process of manual configuration and the tools used in it and its advantages. As well as the ability to practice the skills of communication with others, and interaction in the debate and dialogue and the collective and accept criticism and opinion of the other.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
1.1	Demonstrate knowledge of the different ways of producing stained glass with different types and mosaics, and methods of cutting and digging glass.	K1
1.2	Defined the differences between the techniques used in glass production and their relation to economic, environmental and technological standards.	K2
1...		
2	Skills :	
2.1	Interpret the problems and solutions to different glass forming methods using appropriate technological methods.	S2
2.2	Apply creative skills of the individual and collective level in the production of stained glass and mosaics and the use of melting furnaces and refrigeration.	S3
2...		
3	Competence:	
3.1	Analyze the nature of the operational capabilities of the glass product to match the different stages and methods of production technology and functions	C1
3...		

C. Course Content

No	List of Topics	Contact Hours
1	- Mosaic (opaque - transparent) (flat - stereogram)	10
2	- Stained glass with Gypsum	5
3	- Stained Glass (Leaded - Copper - Cement - Iron)	10
4	- Mechanical drilling on glass using Stones of carburendum and copper discs	7
5	- Mechanical drilling on glass using sand spray or carburendum powder	8
6	- Chemical drilling on glass (hydrofluoric acid)	7
7	- Chemical drilling on glass (with ammonium fluoride salt) (Scratching glue)	8
8	- Hot forming for melted glass (manual)	5
9	- forming Semi-automatic and automatic for glass	5
10	- Melting kilns	5
11	- Cooling kilns	5
Total		75

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 different ways of producing stained glass with different types and mosaics, and methods of cutting and digging 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 differences between the techniques used in glass production and their relation to economic, environmental and technological standards.		
2.0	Skills		
2.1	Interpret the problems and solutions to different glass forming methods using appropriate technological methods.	<ul style="list-style-type: none"> - Brainstorming. - Self-education - Practical 	<ul style="list-style-type: none"> -The Student Achievement File. - Projects evaluation
2.2	Apply creative skills of the individual and collective level in the production of stained glass and mosaics and the use of melting furnaces and refrigeration.		
3.0	Competence		
3.1	Analyze the nature of the operational capabilities of the glass product to match the different stages and methods of production technology and functions	<ul style="list-style-type: none"> - Creative thinking - Collective cooperative education 	<ul style="list-style-type: none"> - Operational projects. - Exercises executive.

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	- روؤف نحاس: صناعة الزجاج ، دار النهضة العربية - القاهرة - ١٩٩٨ . - محمد زينهم: تكنولوجيا فن الزجاج - الهيئة المصرية العامة للكتاب - ١٩٩٥ م.
Essential References Materials	- Laurel Skye, Mosaics Renaissance: Millefiori in Mosaics Paperback - November: Glass Design, Andy McConnell Swedish, 13, 2009 - A. O. ALEXANDROV : Glass Processing Days- Materials Sci
Electronic Materials	- http://www.mosaicartsupply.com - http://www.corning.com/ - http://www.glassart.org/
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	