



Course Specifications

Course Title:	Materials Technology
Course Code:	211DAR-3
Program:	Bachelor in Interior Design
Department:	Interior Design
College:	Design and Architecture
Institution:	Jazan University

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A. Course Identification

1. Credit hours:	3hours (2Lecture +3Laboratory)
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 3/2 rd Year.
4. Pre-requisites for this course (if any):	None
5. Co-requisites for this course (if any):	None

6. Mode of Instruction

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	5 hours	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	30
2	Laboratory/Studio	45
3	Tutorial	0
	Others (specify)	7
4	Assessment assessments (3 hours) 1 Mid Term Examination (1 hour) 1 Final Examination (Theoretical and Practical -3 hours)	
	Total	82
Other Learning Hours*		
1	Study (Lecture)0.5/ 1 credit hour (Practical) 0.5/ 1 credit hour	30 x 0.5=15 15 x 0.5 =7.5
2	Assignments 2 assessments (3 hour for each) 1 Mid Term Examination (1 hour) 1 Final Examination (Theoretical and Practical - 3hours)	7
3	Library 1/ 1 credit hour	3
4	Projects/Research Essays/Theses 5/ 1 credit hour	15
5	Others(specify)	0
	Total	129.5

*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 acquaint the student know-how of technology in their public image and link science and technology with those basic, also aims to give the student technology rules related areas of Specialization, as is the review of research and study of specialized raw materials used in interior design field, also chemical, physical and technological properties for each.

2. Course Main Objective

After completion of the course study, is expected that student will be enable to nature

Technological science which related with basic science, Technology ores and how it relates to the quality of design and implementation, the physical and chemical properties of raw materials and technological in interior design field in addition Methods of measuring and materials testing.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge:	
1.2	Demonstrate different viewpoints and approaches that support the various engineering materials used in interior design according to the environmental and technological climate and social, economic and cultural factors.	K2
2	Skills :	
2.2	practice of different research and investigation methods and their applications related to traditional and modern engineering materials and technologies	S2
3	Competence:	
3.1	Apply to make structured decisions in contexts that require the implementation of interior design projects based on materials used through the sustainability of learning and innovation.	C1
3.2	Organize to manage complex technical or professional activities related to the use of interior design materials, and to link them with the relevant professional disciplines related to the management of these works.	C2

C. Course Content

No	List of Topics	Contact Hours
1	-Core division of engineering materials	5
2	-Mechanical properties of engineering materials	5
3	-Destructive static testing(tension- compression- shearing)	5
4	-Iron and steel	5
5	- Metals and Different Types of Alloys	5
6	-Ceramics (Composition- Manufacturing- Using in Interior Design)	5
7	-Glasses (Composition- Manufacturing- Using in Interior Design)	5
8	-Traditional Painting	5
9	-Modern painting	5
10	- insulating materials to moisture and heat	5
11	- soundproof materials	5
12	-Wood(Sources – Types- Defects)	5
13	- Applications of woods in interior design projects	5
14	- material Design according to the functional aspects of operational &uses	5
15	- Student Course Presentations and Reports	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		
1.2	Demonstrate different viewpoints and approaches that support the various engineering materials used in interior design according to the environmental and technological climate and social, economic and cultural factors.	<ul style="list-style-type: none"> - Lectures -Seminars -Workshops -Brainstorming - Cooperative learning -Dialogue and discussion. 	MCQ (Theoretical objective test) by Test specification table.
2.0	Skills		
2.2	practice of different research and investigation methods and their applications related to traditional and modern engineering materials and technologies	<ul style="list-style-type: none"> - Illustrative tutorials - Practical implementation - Problem-solving strategy 	(practical test) by Test specification table.
3.0	Competence		
3.1	Apply to make structured decisions in contexts that require the implementation of interior design projects based on materials used through the sustainability of learning and innovation.	<ul style="list-style-type: none"> - Self-learning -Small group discussion -Interactivity Focus -Cooperative learning 	(practical test) by Test specification table.
3.2	Organize to manage complex technical or professional activities related to the use of interior design materials, and to link them with the relevant professional disciplines	<ul style="list-style-type: none"> - project evaluations - Presentations 	(practical test) by Test specification table.

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	related to the management of these works.		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments, Quizzes	Periodically	20 %
2	Mid Term	6-8	20 %
3	Research and Presentations	Periodically	20 %
4	Practical exam	16	10 %
5	Theoretical exam	16	30 %
Total			100 %

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 advices 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	<p>1- J. W. Martin, 'Materials for engineering', Second edition, Maney Publishing for The Institute of Materials, USA,(2002).Third edition, Woodhead Publishing Limited And, CRC Press LLC,(2006).</p> <p>2- D. Jones& M. Ashby , Engineering Materials1, "An Introduction to Properties Applications and Design",4th Edition, Butterworth-Heinemann(2011)</p>
Essential References Materials	<p>1- Technological Innovation of Advanced Materials: Management of Global Innovation for the21st Century, Sanford L. Moskowitz, Wiley, 2018</p> <p>2- Raw materials and design techniques, Aldakhali- professor / Adli Mohamed Abdel HadiEngineer / Mohamed Abdullah Aldraash Second Edition (2017)</p> <p>3- Properties of engineering materials - Dr. Abdullah Mohammed Maghari - Dar Al Safaf or publication and distribution – Amman - First Edition - 2008 –</p> <p>4- Dr..Nadia EsmailBondok, Materials Testing and Calibration "Jazan University, SaudiArabia, (3nd Ed.,2017).</p>
Electronic Materials	- www.Science direct.com
Other Learning Materials	None

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Class room containing 60 desk and 60 chairs
Technology Resources (AV, data show, Smart Board, software, etc.)	-Data show attached to instructor computer and projector screen.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Regular office equipments -

G. Course Quality Evaluation


Evaluation Areas/Issues	Evaluators	Evaluation Methods	
		indirect method	direct method
Effectiveness of teaching and assessment	Students	- On line system course survey	
	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	(theoretical and practical tests) By Test specification table.
	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	Department council 
Reference No.	IDS-3-11
Date	4-10-2020