

Academic Program Description Form

University Name: Diyala

Faculty/Institute: Engineering

Scientific Department: Materials engineering

Academic or Professional Program Name: Bachelor of Materials engineering

Final Certificate Name: Bachelor of Materials engineering

Academic System: course

Description Preparation Date: 24-6-2024

File Completion Date: 24-6-2024

Signature:

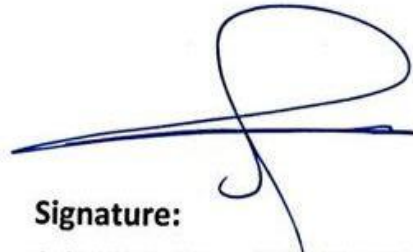


Head of Department Name:

Suha K. Shihab

Date: 25/6/2024

Signature:



Scientific Associate Name:

Jabbar Galtmeh

Date: 25/6/2024

The file is checked by:

Salah N. Farhan

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 25/6/2024

Signature:



Approval of the Dean



Prof. Dr. Anees A. Khadim

1. Program Vision

The vision of the department is to become creative pioneers in effective engineering education, scientific research and community service with a commitment to total quality and cooperation with various engineering authorities locally and internationally in our field of specialization and aspiration to lead in teaching materials engineering sciences

2. Program Mission

Mission of the Department Exerting efforts to build, train and qualify capabilities with high professionalism, conduct applied research, provide specialized advisory services in materials engineering sciences and fields, and provide advanced and accredited engineering education to meet the needs of departments and institutions.

3. Program Objectives

- 1- Preparing and qualifying engineers specialized in materials engineering sciences through diversification in learning and teaching methods and training students to apply the acquired knowledge and skills to solve real problems.
- 2- The department seeks to provide distinguished academic programs in the field of materials engineering sciences in both theoretical and applied aspects that comply with international standards of academic quality.
- 3- Encouraging and developing scientific research in the fields of materials engineering in terms of design, manufacture and selection of materials, which include metal, ceramic, polymeric, composite materials, in addition to recycling and manufacturing materials.
- 4- Providing a stimulating environment for faculty members to develop their educational and research capabilities and skills.
- 5- Providing students with the ability to self-learning, personal development and work in groups. Events

4. Program Accreditation

5. Other external influences

6. Program				
ملاحظات *	النسبة المئوية	وحدة دراسية	عدد المقررات	هيكل البرنامج
	4.24 %	6	5	متطلبات المؤسسة
	14.20 %	20	9	متطلبات الكلية

				متطلبات القسم
Graduation Requirements	-	-	-	التدريب الصيفي
				أخرى

7. Program Description				
Credit Hours		Course Name	Course Code	Year/Level
<i>practical</i>	<i>theoretical</i>			
2	2	<i>Manufacturing Operations 2</i>	<i>MAE441</i>	<i>First\Fourth/</i>

8. Expected Learning Outcomes of the Program	
	Knowledge

9. Teaching and learning strategies

10. Evaluation methods

11. Faculty					
Faculty Members					
Preparation of the teaching staff		Special requirements/skills if any	Specialization		Academic Rank
lecturer	angel		special	year	

Professional Development

Orientation of new faculty members

Briefly describes the process used to mentor new, visiting, full-time, and part-time faculty at the institution and department level

Professional development for faculty members

Briefly describe the academic and professional development plan and arrangements for faculty such as teaching and learning strategies, assessment of learning outcomes, professional development, etc.

12. Acceptance Criterion

13. The most important sources of information about the program

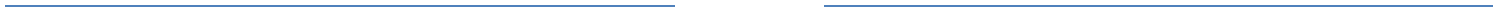
1. Manufacturing Science , Ghosh and Mallik
2. Fundamentals of Modern Manufacturing, Mikell P. Groover
3. Processes and Materials of Manufacturing, ROY A. LINDBERG

14. Program Development Plan

مخطط مهارات البرنامج

مخطط مهارات البرنامج												اساسي أم اختياري	Course Name	Course Code	Year/Level
Learning outcomes required from the program				المهارات				المعرفة							
4C	3C	2c	1C	4b	3b	2b	1b	A4	A3	A2	A1				
												Essential	Manufacturing Operations 2	MAE441	Fourth/First

- Please tick the boxes corresponding to the individual learning outcomes from the program subject to evaluation



Course Description Form

1. Course Name Manufacturing Operations 2					
2. Course Code MAE441					
3. Semester / First Year / Fourth					
4. Date of preparation of the description 24-6-2024					
5. Available attendance formats					
6. Number of Hours (Total) / Number of Units (Total) 4/3					
7. Name of the course administrator (if more than one name is mentioned)					
Name : Prof. Suha Karim Shehab Email:					
8. Course Objectives					
..			1) Achieving the University's objectives within the field of materials engineering; (2) Gives a correct education in the fundamentals of materials engineering ; (3) Develop the skills and confidence necessary to solve, based on engineering and scientific principles, problems in the industrial sector and other industries for which materials engineering is the essential element; (4) Continue to find high-quality graduates; (5) Providing education compatible with the needs of the labor market linked to the Engineers Syndicate. (6) Understand the most important traditional processes and understand the theories of material operation		
9. Teaching and Learning Strategies					
					Strate gy
10. Course Structure					
Evaluatio n method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Traditiona l teaching methods and modern and electronic methods	The basic and cognitive concepts of the student are established by providing lectures and educational videos using data presentation	Turning process and its varietie s	Learn about the turning process -	2	1,2
Traditiona	The basic and	Scrapin	Learn about the scraping		3,

Traditional teaching methods and modern and electronic methods	cognitive concepts of the student are established by providing lectures and educational videos using data presentation	grinding process and butting machine	grinding process		
	The basic and cognitive concepts of the student are established by providing lectures and educational videos using data presentation	The process of peeping, expanding and smoothing	-Learn about the process of receiving Expansion and <i>smoothing</i>	2	4, 5,6
		test		2	7
Traditional teaching methods and modern and electronic methods	The basic and cognitive concepts of the student are established by providing lectures and educational videos using data presentation	Milling process and its variables	-Learn about the milling process -		8,9
Traditional teaching methods and modern and electronic methods	The basic and cognitive concepts of the student are established by providing lectures and educational videos using data presentation	Grinding operations	Learn about the grinding process and how to use it		11, 10
Traditional teaching			Test2		12

methods and modern and electronic methods					
Traditional teaching methods and modern and electronic methods	The basic and cognitive concepts of the student are established by providing lectures and educational videos using data presentation	Surface roughness, methods of measurement and importance Operability	Surface roughness, methods of measurement and importance		14,15 13,

11. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams editorial and reports etc	
12. Learning and Teaching Resources	
	Required textbooks (methodology, if any)
Fundamentals of Modern Manufacturing, Mikell P. Groover	Main references (sources)
Processes and Materials of Manufacturing, ROY A. LINDBERG	Recommended supporting books and references (journals, reports..)
Black, J.T. and Kohser, R.A., 2017. DeGarmo's materials and processes in manufacturing. John Wiley & Sons.	Electronic References, Websites