

## 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 Galtman

**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**

4 Prof. Dr. Anees A. Khadun

## 1. Program Vision

## 2. Program Mission

## 3. Program Objectives

## 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

\* ممكن ان تتضمن الملاحظات فيما اذا كان المقرر أساسي او اختياري .

7. Program Description				
Credit Hours		Course Name	Course Code	Year/Level
<i>practical</i>	<i>theoretical</i>			

8. Expected Learning Outcomes of the Program	
	<p><b>Knowledge</b></p> <p>1) Understand and teach the student the principles of materials science and how to deal with materials.</p> <p>2) Enable students to obtain knowledge and understanding in working on materials and designing.</p> <p>3) Understand the student methods of forming parts of the materials and their interconnection.</p> <p>4) Enable students to obtain knowledge and understanding by designing everything related to materials engineering.</p> <p>5) Enable students to obtain knowledge and understanding on the diagnosis and examination of types of materials.</p> <p>6) Understand the student the basics of solving problems using materials in various industries .</p>
	<p><b>Skills</b></p> <p>Explain the topics of the principles of materials engineering science by specialists in the subject with an emphasis on the use of the practical side as a basis for understanding and learning</p> <p>It provides them with the skills to solve practical problems related to the science of engineering various materials and solve technical problems in various fields of work.</p>
	<p><b>Values</b></p> <p>Enable students to think and analyze topics related to the engineering framework of materials engineering science</p> <p>Enable students to think and analyze topics related to practical problem solving</p>

---

## 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	

<b>Professional Development</b>
---------------------------------

<b>Orientation of new faculty members</b>
---

Faculty members are guided by holding periodic meetings and reverse review by the Scientific Committee for questionnaires obtained from students
--

<b>Professional development for faculty members</b>
---

The teaching staff is developed through the establishment of training or specialized courses, practical workshops and seminars with quarterly seminars. Progress is reviewed by evaluating the results of the subjects.
---

---

---

## 12. Acceptance Criterion

---

---

## 13. The most important sources of information about the program

--

---

---

## 14. Program Development Plan

--

مخطط مهارات البرنامج

Learning outcomes required from the program												اساسي أم اختياري	Course Name	Course Code	Year/Level
القيم				المهارات				المعرفة							
4C	3C	2c	1C	4b	3b	2b	1b	A4	A3	A2	A1				
√	√	√	√	√	√	√	√	√	√	√	√	fundamental	Engineering Economics	MAE 404	IV/Chapter II

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

## Course Description Form

1. Course Name					
Engineering Economics					
2. Course Code					
MAE 404					
3. Semester / Year					
Second Semester / Fourth Year					
4. Date of preparation of the description					
24 / 6 / 2024					
5. Available attendance formats					
Came					
6. Number of Hours (Total) / Number of Units (Total)					
30					
7. Name of the course administrator (if more than one name is mentioned)					
Name: A.md. Saeb Diab Alwan Email:saib_Alwan_eng@uodiyala.edu.iq					
8. Course Objectives					
<ul style="list-style-type: none"> <li>Understand the principles of engineering economics</li> <li>How to think about economic projects</li> <li>Learn the types of engineering economics</li> </ul>				Course Objectives	
9. Teaching and Learning Strategies					
Providing students with scientific, practical and self-skills that enable them to solve practical problems and deal with them with scientific concepts					Strategy
10. Course Structure					
Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Daily and monthly exams	PDF lectures, PPT	Principles of Engineering Economy and Equivalence and compound interest formula.	Introduction to Engineering Economics - Types - Principles	6	1-2-3
Daily and monthly exams	PDF lectures, PPT	Single payment model.and Uniform payment model.and Gradient payment model	Recognize payment patterns and characteristics	10	4-5-6-7-8
Daily and monthly exams	PDF lectures, PPT	Decision criteria for single and multiple alternatives: Present worth,annual worth,future worth,internal rate of return,benefit cost ratio-and Economic laws	Learn about the applications of engineering economics and its laws	10	9-10-11-12-13
Daily and monthly exams	PDF lectures, PPT	Comparison among projects, projects evaluation, replacement, management and risk management	Learn how to compare and evaluate projects, project management strategies and management skills	4	14-15
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					
McGraw-Hill, a business unit of The McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY 10020.			Required textbooks (methodology, if any)		

Copyright © 2012.	
lectures provided by the subject teacher and Books available in the college library	Main references (sources)
All sober scientific journals related to the principles of engineering economics . Engineering Economy .seventh edition,2010.	Recommended supporting books and references (journals, reports..)
Useful and appropriate websites for engineering economics	Electronic References, Websites