MUTAH UNIVERSITY
Faculty of Engineering
Department of Mechanical Engineering

Course Syllabus

Course Code	Course Name	Credits	Contact Hours
0402110	Engineering Workshop	1	2T

INSTRUCTOR/COORDINATOR.	
Name	Dr.Mohammed Awwad Al-dabbbas
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Office Hours	11-12:30 Mon, Wend
Classroom/Time	work shop 2021

TEXTBOOK	
Title	Manufacturing processes for Engineering materials, 5th edition, Prentice hall. (2010)
Author/Year/Edition	Kalpakjian et al.,
Other Supplemental Materials	
Title	Manufacturing Engineering and Technology, 6th edition. Prentice Hall
Author/Year/Edition	Serope Kapakjian and Steven Schmid (2006).
Title	Fundamental of modern manufacturing, international edition, Prentice-Hall Inc.(2010)
Author/Year/Edition	Groover et al.

SPECIFIC COURSE INFORMATION
A. Brief Description of the Content of the Course (Catalog Description)
This course aims to introduce the student to various manufacturing processes, and it includes the following topics: - General safety, materials and their classifications, measuring devices and their accuracy, fits and tolerances, theoretical background for the practical exercises including fitting, forging, carpentry, casting, welding, mechanical saws, shearers, drills, lathes, milling machines, shapers and grinders
B. Pre-requisites (P) or Co-requisites (C)
None

C. Course Type (Required or Elective)
Required
SPECIFIC GOALS
A. Course Learning Objectives (CLOs)
CLO1: Recognize safety requirements in engineering workshops [6]. **CLO2:** Distinguish between common engineering materials and their classifications [6] **CLO3**: Knowing various common manufacturing processes [6]. **CLO4**: Understanding various operations and tools [6]. **CLO5**: Distinguished between various common machine tools [6]. **CLO6**: Familiarize students with carpentry operations, tools, and machines [6]. **CLO7**: Recognized ethical and professional responsibilities [4]. **CLO8**: Adopt engineering knowledge gained from this course to feel real life production [4] **CLO9**: Practice teamwork experience [5]. **CLO10**:Familiarize the students with basic measuring instruments necessary for production processes [6]
B. Student Learning Outcomes (SOs) Addressed by the Course

1	2	3	4	5	6	7
			✓	✓	✓	

BRIEF LIST OF TOPICS TO BE COVERED		
List of Topics	**No. of Weeks**	**Contact Hours**
Course orientation and safety requirements awareness	2	4
Measuring and powering tools	2	4
Metal cutting process	1	2
Metal cutting process	1	2
Carpentry operations	2	4
Machines and tools	1	2
Welding technology	1	2
Casting process	2	4
Forging process	1	2
Sheet metal process	1	2

Final Exam	-	-
Total	*14*	*28*

EVALUATION		
Assessment Tool	**Due Date**	**Weight (%)**
Mid Exam	According to the university calendar	30
Course Work (Homeworks, Quizzes, Projects, …etc.)	One week after being assigned	40
Final Exam	According to the university calendar	30

ABET's Students Learning Outcomes (Criterion # 3)

	Relationship to program outcomes	
ABET 1-7		**… Engineering Student Outcomes**
1.		an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2.		an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic
3.		ability to communicate effectively with a range of audiences
4.	✓	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5.	✓	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6.	✓	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7.		an ability to acquire and apply new knowledge as needed, using appropriate learning strategies