

Course E-Syllabus

1	Course title	Engineering Workshops
2	Course number	0966111
3	Credit hours	1
	Contact hours (theory, practical)	Theory and practical 3 hours per week
4	Prerequisites/corequisites	None
5	Program title	B.Sc. Industrial Engineering
6	Program code	
7	Awarding institution	The University of Jordan
8	School	Engineering
9	Department	Industrial Engineering
10	Level of course	1 st year
11	Year of study and semester (s)	Fall (1st semester) 2020/2021
12	Final Qualification	
13	Other department (s) involved in teaching the course	
14	Language of Instruction	English/Arabic
15	Teaching methodology	<input checked="" type="checkbox"/> Blended <input type="checkbox"/> Online
16	Electronic platform(s)	<input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input checked="" type="checkbox"/> Others..... YouTube..., Practical part at the University...
17	Date of production/revision	8/10/2020

18 Course Coordinator:

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19 Other instructors:

Name: N/A
Office number:
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Name:
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Email:

20 Course Description:

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.

21 Course aims and outcomes:

Course Learning Outcome #	After successful completion of this course, the student will be able to	SO
CLO1	Recognize safety requirements in engineering workshops.	4
CLO2	Distinguish between common engineering materials and their classifications	6
CLO3	Knowing various common manufacturing processes.	6
CLO4	Understanding various operations and tools.	2,6
CLO5	Distinguished between various common machine tools.	2,6
CLO6	Familiarize students with carpentry operations, tools, and machines.	2,6
CLO7	Recognized ethical and professional responsibilities.	4
CLO8	Adopt engineering knowledge gained from this course to feel real life production	2,6
CLO9	Practice teamwork experience	5
CLO10	Familiarize the students with basic measuring instruments necessary for production processes.	2,6
The B.Sc. in industrial Engineering program enables students to achieve, by the time of graduation following program learning outcome (SOs)		
1	<i>an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</i>	6 <i>an ability to develop and conduct appropriate experimental analyze and interpret data, and engineering judgment to draw conclusions</i>
2	<i>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 factors</i>	7 <i>an ability to acquire and apply new knowledge as needed, using appropriate learning strategies</i>
3	<i>an ability to communicate effectively with a range of audiences</i>	
4	<i>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</i>	
5	<i>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</i>	

22. Topic Outline and Schedule:

Week	Lecture	Topic	Teaching Methods*/platform	Evaluation Methods**	References
1	1.1	Course orientation and safety requirements awareness	Live meeting/ Microsoft teams		
2	2.1	Measuring and powering tools	Theoretical and the practical parts at the University		
3	3.1	Metal cutting process	Theoretical and the practical parts at the University		
4	4.1	Metal cutting process	Theoretical and the practical parts at the University	Reports and Quizzes	
5	5.1	Carpentry operations	Theoretical and the practical parts at the University		
6	6.1	Machines and tools	Theoretical and the practical parts at the University		
7	7.1	Welding technology	Theoretical and the practical parts at the University		
8	8.1	Midterm Exam		Exam	
9	9.1	Casting process	Theoretical and the practical parts at the University		
10	10.1	Casting process	Theoretical and the practical parts at the University	Reports and Quizzes	
11	11.1	Forging process	Theoretical and the practical parts at the University		
12	12.1	Sheet metal process	Theoretical and the practical parts at the University		
13	13.1	Final practical Exam		Reports and Quizzes	
14	14.1	Final Exam week		Exam	

- Teaching methods include: Synchronous lecturing/meeting; Asynchronous lecturing/meeting
- Evaluation methods include: Homework, Quiz, Exam, pre-lab quiz...etc

23 Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	Period (Week)	Platform
Reports and quizzes	20			
Midterm Exam	30			
Final Exam	20			

24 Course Requirements (e.g: students should have a computer, internet connection, webcam, account on a specific software/platform...etc):

Student should have a computer and internet connection.

25 Course Policies:

A- Attendance policies: all students are expected to attend all online meetings and practical workshops. Any student with more than 15% missing classes is subject to be failed in the class.

B- Absences from exams and submitting assignments on time: all students should submit the assigned quizzes, short late submission is permissible if the student had internet issues during the exam. Midterm and Final exams are expected to be on campus and all absent students are subject to the university regulation for accepting their absence excuse through the office of the assistant dean for student affairs

C- Health and safety procedures:

D- Honesty policy regarding cheating, plagiarism, misbehavior:

E- Grading policy:

Midterm	:30%
Projects and Quizzes	:20%
Final	:50%
Total	:100%

F- Available university services that support achievement in the course:

26 References:

A- Required book(s), assigned reading and audio-visuals:
Workshop/Manufacturing practices

B- Recommended books, materials and media:

1. Kalpakjian et al., Manufacturing processes for Engineering materials, 5th edition, Prentice hall. (2010)
2. Serope Kapakjian and Steven Schmid (2006). Manufacturing Engineering and Technology, 6th edition. Prentice Hall.
- A- 3. Groover et al. Fundamental of modern manufacturing, international edition, Prentice-Hall Inc.(2010)

27 Additional information:

The B.Sc. in industrial Engineering program enables students to achieve, by the time of graduation the following program learning outcome (SOs)			
1	<i>an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</i>	6	<i>an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions</i>
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5	<i>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</i>		

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of Curriculum Committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of Curriculum Committee/Faculty: ----- Signature: -----

Dean: ----- Signature: -----