



## Course Syllabus

1	Course title	Biofuel	
2	Course number	0915423	
3	Credit hours	3	
	Contact hours (theory, practical)	(3,0)	
4	Prerequisites/corequisites	0905421, 0935441	
5	Program title	B.Sc. in Chemical Engineering	
6	Program code	5	
7	Awarding institution	The University of Jordan	
8	School	School of Engineering	
9	Department	Department of Chemical Engineering	
10	Course level	Forth year	
11	Year of study and semester (s)	Froth year/1 <sup>st</sup> semester	
12	Other department (s) involved in teaching the course	No departments are involved in teaching the course	
13	Main teaching language	English	
14	Delivery method	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online	
15	Online platforms(s)	<input type="checkbox"/> Moodle <input type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date		

### 17 Course Coordinator:

Name:	Contact hours:
Office number:	Phone number:
Email:	



### 18 Other instructors:

Name:

Office number:

Phone number:

Email:

Contact hours:

Name:

Office number:

Phone number:

Email:

Contact hours:

### 19 Course Description:

As stated in the approved study plan.

Description of the different "generations" of biofuels: 1. biofuels from sugars, starches, vegetable and animal oils 2. Biofuels from non-food crops like ligno-cellulose 3. Biofuels from algae 4. Biofuels from specially engineered plants. Biomass feedstock's, fuels from cellulose, bioethanol, biobutanol, biodiesel, algae biofuel, biogas, microbial fuel cells. Calculation energy balance of biofuel production. Environmental impacts of biofuel production; economics and life-cycle analysis of biofuel; value-added processing of biofuel residues; thermochemical conversion of biomass to heat, power, and fuel; case studies on biofuel production.

## 20 Course aims and outcomes:

A- Aims:

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

SLOs SLOs of the course	SLO (1)	SLO (2)	SLO (3)	SLO (4)
1				
2				
3				
4				
5				
6				

## 21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1							
	1.2							
	1.3							
2	2.1							
	2.2							
	2.3							
Week	Lecture	Topic	Student Learning	Learning Methods (Face	Platform	Synchronous / Asynchronous	Evaluation	Resources

			Outcome	to Face/Blended/ Fully Online)		Lecturing	Methods	
3	3.1							
	3.2							
	3.3							
4	4.1							
	4.2							
	4.3							
5	5.1							
	5.2							
	5.3							
6	6.1							
	6.2							
	6.3							
7	7.1							
	7.2							
	7.3							
8	8.1							
	8.2							
	8.3							
9	9.1							
	9.2							
	9.3							
10	10.1							
	10.2							
	10.3							
Week	Lecture	Topic	Student Learning	Learning Methods (Face	Platform	Synchronous / Asynchronous	Evaluation	Resources

			Outcome	to Face/Blended/ Fully Online)		Lecturing	Methods	
11	11.1							
	11.2							
	11.3							
12	12.1							
	12.2							
	12.3							
13	13.1							
	13.2							
	13.3							
14	14.1							
	14.2							
	14.3							
15	15.1							
	15.2							
	15.3							

## 22 Evaluation Methods:

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

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform



### 23 Course Requirements

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

### 24 Course Policies:

- A- Attendance policies:
- B- Absences from exams and submitting assignments on time:
- C- Health and safety procedures:
- D- Honesty policy regarding cheating, plagiarism, misbehavior:
- E- Grading policy:
- F- Available university services that support achievement in the course:

### 25 References:

- A- Required book(s), assigned reading and audio-visuals:
  
- B- Recommended books, materials, and media:

### 26 Additional information:



Name of Course Coordinator: -----Signature: ----- Date: ----- -----
Head of Curriculum Committee/Department: ----- Signature: ----- ---
Head of Department: ----- Signature: ----- -
Head of Curriculum Committee/Faculty: ----- Signature: ----- -
Dean: ----- Signature: -----