مركز الاعتماد وضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER

Course Syllabus

1	**Course title**	**Nanotechnology**
2	**Course number**	0915531
3	**Credit hours**	3
	Contact hours (theory, practical)	(3,0)
4	**Prerequisites/corequisites**	0935442
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**	Fifth year
11	**Year of study and semester (s)**	Fifth year
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**	☒Face to face learning ☐Blended ☐Fully online
15	**Online platforms(s)**	☐Moodle ☐Microsoft Teams ☐Skype ☐Zoom ☐Others……
16	**Issuing/Revision Date**	

17 Course Coordinator:

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

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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. Introduction to nanotechnology and nanoscale engineering. Synthesis of nanocarobon and nanocomposites, unique chemical and physical properties, materials characterization. Current and potential applications of inorganic, biological, and hybrid materials. Application of nanotechnology for environmental remediation, and water and air treatment. Application of nanotechnology for catalysis and chemical reaction. Nano-sensors design and fabrication, and application for chemical and biological systems. Synthesis and fabrication of nanocomposite materials, bulk metal and ceramic nanocomposite, Polymer-based and polymer-filled nanocomposite, modeling of nanocomposites.

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							
3	3.1							
	3.2							
	3.3							
4	4.1							
	4.2							
	4.3							

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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							
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: ----------