



Course Syllabus

1	Course title	Applied climatology	
2	Course number	2304231	
3	Credit hours	3	
	Contact hours (theory, practical)	3	
4	Prerequisites/corequisites	Climatology	
5	Program title	B.S	
6	Program code		
7	Awarding institution	University of Jordan	
8	School	Art and science	
9	Department	Geography	
10	Course level	2	
11	Year of study and semester (s)	First 2022-2023	
12	Other department (s) involved in teaching the course	-	
13	Main teaching language	Arabic	
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	6-10-2022	



17 Course Coordinator:

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

18 Other instructors:

Name: prof.Ali Ghanem
Office number: art and science
Phone number: 24954
Email:ali.ghanem@ju.edu.jo
Contact hours: 9:30-11:00
Name:
Office number:
Phone number:
Email:
Contact hours:

19 Course Description:

As stated in the approved study plan.

The aim of this course is to study the scientific method of measuring climate elements which the scientific research depends on, and to understand the direct and indirect effects of climate elements on the physical and human environments.



--

20 Course aims and outcomes:



A- Aims:

- 1- explain the type of climate data
- 2- explain the ancient climate from the past to now
3. explain the theories of climate change
- 4.study the impact of climate on human life such as agriculture, energy, water harvesting, transportation, etc.

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- understand the importance of climate elements				
2- to know the effect of climate elements on our life				
3- manage the climate hazards				
4- understand how and why climate change				
5- increase the ability of doing scientific research				



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
1	1.1	Course outline	1- understand the importance of climate elements	Face to Face		Prof.Ali Ghanem applied climatology	Exam and homework
	1.2	1. climate data					
	1.3	1.1 data measurement					
2	2.1	1.2 cont., 1.1	1- understand the importance of climate elements				
	2.2	1.3 modern techniques RS and GIS					



	2.3	2. energy balance in human body							
3	3.1	2.1 energy balance for animals	1- understand the importance of climate elements						
	3.2	3. human comfort							
	3.3	3.1 effective temperature							
4	4.1	3.2 wind chill factor	2- to know the effect of climate elements on our life						
	4.2	4. climate and human health							
	4.3	4.1 the impact of radiation							
5	5.1	4.2 the impact of	2- to know						



		temperatur e	the effect of climate elements on our life							
	5.2	4.3 the impact of humidity , pressure and wind								
	5.3	4.4 air pollution								
6	6.1	4.5 the factors causes diseases	2- to know the effect of climate elements on our life							
	6.2	4.6 epidemics from the past until now								
	6.3	4.7 cont.4.6								
7	7.1	Exam 3-8	3- manage the climate hazards							
	7.2	5. climate and								



		architecture							
	7.3	5.1 locate building site							
8	8.1	5.2 building materials	3- manage the climate hazards						
	8.2	5.3 impact and radiation and temperature							
	8.3	5.4 the impact of precipitation, lightning							
9	9.1	5.5 energy balance in buildings	3- manage the climate hazards						
	9.2	5.6 building pollution							
	9.3	6. heat island							
10	10.1	6.1 factors of heat island	4- understand how and why climate						



			change						
	10.2	6.2 the effect of heat island on climate element							
	10.3	7. agroclimatology							
11	11.1	7.1 the impact of climate elements on agriculture	4- understand how and why climate change						
	11.2	7.2 the impact of radiation							
	11.3	7.3 the impact of temperature							
12	12.1	7.4 the impact of precipitation	4- understand how and why climate change						
	12.2	7.5 the impact of							



		hail , dew and winds							
	12.3	7.6 weather forecasting							
13	13.1	7.7 climate elements and animals	5- increase the ability of doing scientific research						
	13.2	8. transportati on							
	13.3	8.1 air transportati on							
14	14.1	8.2 land transportati on	5- increase the ability of doing scientific research						
	14.2	8.3 sea transportati on							
	14.3	Review							

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
exam	30	Chapter 1-2-3	Climate impact	Seven	
Homework	20	The impact of any climate elements in our life	Climate impact	Until 15-8	
Final exam	50	All chapters	Applied climatology	The end of semester	

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:

Prof.Ali Ghanem applied climatology

B- Recommended books, materials, and media:

Bryant EA. 1997. Natural Hazards.

Burroughs WJ 2001. Climate Change.

Byrme J. 2004.The Black Death.

Glantz MH.2001.Currents of changes.

Greenwood B .2005.Malaria.

Hoag P. 1998. Weather Modification.

O'Neil B. 2001.Population and climate change.

Orent W. 2004. Plague.

Proper A. 2001. Intelligent Transportation Systems Benefits.

Singer S .2008.Unstoppable Global Warming.

Businger S .1991. Arctic Hurricanes.

Kellogg WW .1997.Efects Of Human Activities on global climate.

Morgan MD.1997.Weather and people.

Thompson R.D and Perry A. 1997. Applied Climatology.

Eagleman.JR.1985.Meteorology:The Atmosphere in action



26 Additional information:

Name of Course Coordinator: prof. Ali Ghanem	Signature: -----	Date: 7-10-2022
Head of Curriculum Committee/Department: -----	Signature: -----	---
Head of Department: -----	Signature: -----	-
Head of Curriculum Committee/Faculty: -----	Signature: -----	-
Dean: -----	Signature: -----	