Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Course Description

2024-2025

Academic Program Description Form

University Name: University of Mosul

Faculty/Institute: College of Education for Humanities

Scientific Department: Geography

Academic or Professional Program Name: Bachelor of Geography

Final Certificate Name: Bachelor of Geography

Academic System: Annual

Description Preparation Date: 01/09/2024

File Completion Date: 01/10/2024

Signature:
Head of Department Name: Prof. Dr. Suhaib Khudur

Date:

Signature:
Scientific Associate Name: Asst. Prof. Dr. Saleh Sheikh

Date:

جامعة الموصل
كلية التربية للعلوم الانسانية
قسم الجغرافيا
٢٠٢٣

The file is checked by:

Department of Quality Assurance and University Performance

Asst. Lect. Mahmoud Ammar Al-Atraqji

Director of the Quality Assurance and University Performance Department

Date:

Signature:

جامعة الموصل
شعبة ضمان الجودة والتقويم الأكاديمي
كلية التربية للعلوم الانسانية

Prof. Dr. Saad Ramadhan Mohammed

Approval of the Dean

أ.د. سعد رمضان محمد الجبوري
عميد كلية التربية للعلوم الانسانية

Course Description Form

1. Course Name:
Geography of Africa and Australia
2. Course Code:
3. Semester / Year:
2024–2025
4. Description Preparation Date:
1–10–2024
5. Available Attendance Forms:
In person
6. Number of Credit Hours (Total) / Number of Units (Total)
60 hours in 15 weeks
7. Course administrator's name (mention all, if more than one name)
Name: Dr. Mohammed Salih Abbas Salih Email: mohammed.salih.a@uomosul.edu.iq
8. Course Objectives

Course Objectives	**1- Teaching regional geography as an important component of acquiring geographical information.** **2- Learning the regional geography of Africa and Australia to gain insight into important geographical information.** **3- Teaching students to read maps of Africa and Australia and how to interpret the mental image and connect it to geographical information.**
9. Teaching and Learning Strategies	
Strategy	- Enabling students to acquire a conceptual framework for the subject of regional geography of Africa and Australia. - Preparing students to teach the subject in schools. - Preparing students educationally and professionally. - Providing specialized advice to institutions and departments in relevant ministries.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	4	Introducing the student to an introduction, general idea, and basic definitions	Physical geography of Africa and Australia	Discussion and exchange of views	Lecture and discussion style
2	4	Introducing the student to the geographical and astronomical location	Geographical and astronomical location	Discussion and exchange of views	Lecture and discussion style
3	4	Introducing the student to the geological formation	geological formation	Discussion and exchange of views	Lecture and discussion style
4	4	Introducing the student to the surface and terrain	Surface and terrain	Discussion and exchange of views	Lecture and discussion style
5	4	Introducing the student to climate and climatic regions	Climate and climatic regions	Discussion and exchange of views	Lecture and discussion style
6	4	Introducing students to water resources	water resources	Discussion and exchange of views	Lecture and discussion style
7	4	Introducing the student to soil and natural plants	soil and natural vegetation	Discussion and exchange of views	Lecture and discussion style
8	4	Introducing the student to the human geography of the continents of Africa and Australia	Human geography of Africa and Australia	Discussion and exchange of views	Lecture and discussion style

9	4	Introducing the student to population and demographic characteristics	Population and demographic characteristics	Discussion and exchange of views	Lecture and discussion style
10	4	Introducing the student to agriculture and animal wealth	Agriculture and Livestock	Discussion and exchange of views	Lecture and discussion style
11	4	Introducing the student to mineral wealth	Mineral wealth	Discussion and exchange of views	Lecture and discussion style
12	4	Introducing the student to the industry	Industry	Discussion and exchange of views	Lecture and discussion style
13	4	Introducing t student transportation	Transportation	Discussion and exchange of views	Lecture and discussion style
14	4	Introducing the student to economics and commerce	Economy and Trade	Discussion and exchange of views	Lecture and discussion style
15	4	Introducing the student to the regions	Regions: Central Africa and Australia	Discussion and exchange of views	Lecture and discussion style

11. Course Evaluation

5 points for daily preparation
10 points for monthly exams
25 points for mid-year exams
60 points for final exams

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Africa and Australia Book
Main references (sources)	1- Benefit from modern scientific resources in the field of specialization. 2- Benefit from electronic library resources. 3- Bridging academic and practical skills.
Recommended books and references (scientific journals, reports…)	Journal of Humanities + Geographical Society + National Geographic
Electronic References, Websites	Iraqi Academic Scientific Journals Website

Course Description Form

1. Course Name:
Weather and climate
2. Course Code:
3. Semester / Year:
2024-2025
4. Description Preparation Date:
Annual course
5. Available Attendance Forms:
My presence
6. Number of Credit Hours (Total) / Number of Units (Total)
Theoretical(2) Hours . Practical (1) Hours/ Units (2)
7. Course administrator's name (mention all, if more than one name)
Name: Assist. Prof. Dr:Khalid Satam Atiyah Email: khalidsetam80@uomosul.edu.iq
8. Course Objectives

Course Objectiv	**- It is determined to prepare new, highly educated cadres.** **- Able to practice teaching and transferring skills to students.** **- Understanding and comprehending meteorology and climate science, its methodology and fields of study.** **- Reviewing the latest studies, sources and research methods and harnessing them to serve the teaching and learning of climate.** .

9. Teaching and Learning Strategies

Strategy	1. Focus on climate studies and the sources from which weather originates. 2. Understanding weather and climate, measuring them, and extracting their requirements. 3. Specific topics for studying the various sectors of meteorology and climate. 4. Methods for studying climate phenomena and training students on the including the equations and methods used to extract them, such as drought a visualization, etc. 5- It aims to increase students' focus and awareness of the importance of clim science and its significant role on humans, their various activities, and environment in which they live.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
The first	2		The concept of weather and climate scien and its study trends	discussion	
The second	2		Branches of weather and climate science	discussion	
The third	2		The gaseous envelope and its layers	discussion	
the fourth	2		Pollution and its impact on climate	discussion	
Fifth	2		Solar radiation, factors affecting it, and methods of measuring it.	discussion	
VI	2		Temperature rates, factors affecting them, methods of measuring them.	discussion	
VIII	2		Atmospheric pressure, factors affecting i methods of measuring it. Winds, factors affecting them, and metho of measuring them.	discussion	
Ninth	2		Relative humidity, factors affecting it, an methods for measuring it.	discussion	
The tenth	2		Rain, precipitation, factors affecting it, an methods of measuring it.	discussion	
Eleventh	2		Evaporation, factors affecting it, and meth of measuring it.	discussion	
twelveth	2		Air masses, factors affecting them, and methods of measuring them.	discussion	
Thirteenth	2		Weather depressions, factors affecting the and methods of measuring them.	discussion	
fourteenth	2		Atmospheric heights, factors affecting the and methods of measuring them.	discussion	
Fifteenth	2		Storms and hurricanes, the factors affecti them, and methods of measuring them.	discussion	
The sixteenth	2		Weather phenomena (fog, frost, hail, thu lightning) Air masses, factors affecting them, and methods of measuring them.	discussion	

week					
Eighteen	2		Weather depressions, factors affecting the and methods of measuring them.	discussion	
nineteenth	2		Atmospheric heights, factors affecting the and methods of measuring them.	discussion	
The twentieth	2		Storms and hurricanes and the factors affecting them and their measurement.	discussion	
21st	2		Weather phenomena (fog, frost, hail, thun lightning)	discussion	
Twenty tow	2		Phenomena (dust storms, suspended dust, e dust) Weather forecasting and accordingly	discussion	
Twenty third	2		Next Climate (causes - results - consun The city's climate is a model of local clim change	discussion	
Twenty fourth	2		Return to the biological environmen Climate contributed to water sources	discussion	
Th25	2		Climate changes (causes - results - treatments)	discussion	
Twenty-sixth	2		The city's climate is a model of local clim change	discussion	
th27	2		The impact of climate on the biological environment	discussion	
Twenty-eighth	2		The impact of climate on water sources	discussion	
				Twenty-eighth	2

11.

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc .

- Daily preparation: 5 degrees
- Monthly exams: 10 marks
- Mid-year exam: 25 marks
- Annual quest: 40 degrees
- Final exam: 60 marks

12. Learning and Teaching Resources	
A prescribed methodological book (Fundamentals Weather and Climate) by Adnan Al-Bayati, Sal Al-Rawi	
Main references (sources)	
- Book (Applied Climate Geography) by Dr. Muhammad Ibrahim Sharaf 2005 - Book (Climate Geography) by Dr. Salam Hatef Al-Jubouri, 2016 - Book (Climatology) by Dr. Noman Shehadha 2009 -Book (Reference on Climate Disasters) by Dr. Ali Hassan Musa, 2016	
Electronic References, Websites	

Course Description Form

1. Course Name:
Political Geography
2. Course Code:
UOMEG1422
3. Semester / Year:
Annual
4. Description Preparation Date:
01/09/2024
5. Available Attendance Forms:
Traditional lectures Blended learning E-learning
6. Number of Credit Hours (Total) / Number of Units (Total)
Hours (2) Units (4)
7. Course administrator's name (mention all, if more than one name)
Name: Prof. Dr. Ahmed Hamed Ali Email: dr.ahmed.h.ali@uomosul.edu.iq
8. Course Objectives

Course Objectives	1. Introduce students to the basic concepts related to political geography. 2. Enable students to identify the elements of state power and those responsible for its foreign relations. 3. Analyze the spatial relationships between natural and human geographic phenomena as foundations of political geography. 4. Develop students' skills in studying the relationship between humans and the environment in the fields of political geography. 5. Provide students with knowledge of quantitative methods and theories that reveal the importance of political geography.

9. Teaching and Learning Strategies

Strategy	- Lecture. - Discussion. - Collaborative learning. - Brainstorming. - Project-based learning. - Problem-based learning. - Mind and concept maps. - Inquiry and discovery.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	1,2	Political Geography: Concept and Stages of Development	Discussion, Brainstormi Cooperative Learning	Oral questio continuous assessment rec
2	2	1,2			
3	2	2,3	Research Methods in Political Geography		
4	2	2,3			
5	2	1,2	The Relationship between Political Geography and Geopolitics		
6	2	1,3	The Concept of the State and Theories of its Emergence		
7	2	2,3			
8	2	1,3	State Power and Methods of Measuring It		
9	2	2,3			
10	2	1,3	Natural Components of the State		
11	2	1,3	Demographic and Economic Components of the State		
12	2	1,3	State Power and Methods of Measuring		
13	2	1,3	The Concept of Political Borders and Th		
14	2	2,4	Development		
15	2	1,3	First Semester Exam		
16	2	1,3	Mid-Year Exams		
17	2	1,4	Mid-Year Vacation		
18	2	1,3	Types of Political Borders		
19	2	3,4	Globalization and Its Political Effects		
20	2	1,3	The Concept and Types of the International System		
21	2	1,3	Actors and Issues of the International System		
22	2	1,3			
23	2	1,3	International Conflict in the New World Order		
24	2	1,3	Student Application Period in Schools		
25	2	1,3			
26	2	1,3			
27	2	2,4	Old and Modern Geopolitical Theories		
28	2	1,3	The Theory of Creative Chaos and the Failed State		
29	2	1,3	Theory of Center and Periphery and		
30	2	2,4	Theory of Dual Containment		

11. Course Evaluation

Monthly tests 15 %
Midterm exam 25%
Final exam 60%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Dr. Muhammad Azhar Saeed Al-Samak, Political Geography from a Twenty-First Century Perspective: Between Methodology

	and Application, 2008.
Main references (sources)	Dr. Muhammad Azhar Saeed Al-Samak, Political Geography from a Twenty-First Century Perspective: Between Methodology and Application, 2008
Recommended books and references (scientific journals, reports…)	Muhammad Mahmoud Ibrahim al-Deeb, Political Geography: A Contemporary Perspective. Qasim Duweikat, Problems of Political Borders in the Arab World. Noam Chomsky, Globalization and Terrorism: America's War on the World. Abdul Amir Abbas al-Hayali and Wahid In'am, The Geography of Elections
Electronic References, Websites	

Course Description Form

1. Course Name:
rural geography
2. Course Code:
UOMEG131
3. Semester / Year:
Academic year 2024-2025
4. Description Preparation Date:
1/9/2024
5. Available Attendance Forms:
In-person – electronic class
6. Number of Credit Hours (Total) / Number of Units (Total)
6 hours a week
7. Course administrator's name (mention all, if more than one name)
Name: Dr. Alaa Hekmat Ahmed Email: alaa.hikmat@uomosul.edu.iq

8. Course Objectives	
Course Objectives	1. Introduce students to the basic concepts related to rural geography. 2. Enable students to recognize the types and relationships of rural geography with other branches of geography (natural and human). 3. Analyze the problems facing rural and urban areas and develop solutions. 4. Develop students' skills in studying the relationship between rural-urban relations and sustainable development. 5. Provide students with knowledge of the la legislation, and principles that distinguish rural urban areas.

9. Teaching and Learning Strategies	
Strategy	Theoretical and practical lecture, dialogue and discussions, oral questions

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1			Basic Concepts of R Geography	Teaching Method	Assessment Meth
2			The Concept of the T "Rural" in Arabic	Discussion	Oral Questions
3			The Relationship of R Geography to Other Branc of Geography	Discussion	Oral Questions
4			The Relationship of R Geography to Branches Physical Geography	Presentation Interrogation	Oral Questions, Continuous Assessment Recc
5			The Relationship of R Geography to Branches Human Geography	Discussion Interrogation	Oral Questions, Daily Test
6			The Distinctive B Between Rural and Ur Areas	Presentation /	Oral Questions
7			Population Size	Discussion	
8				Discussion	Oral Questions
9			The Functional B	Discussion	Oral Questions, Homework Solutions
10			Based on Exte Appearance	Discussion	
11				Teaching Method	Written Test
12			The Administrative Basis	Discussion	Assessment Meth
13			Morphology of R Housing	Discussion	Oral Questions
14			Rural Housing Form	Presentation Interrogation	Oral Questions
15			Rural Housing Design	Discussion Interrogation	Oral Questions, Continuous Assessment Recc
16			Components of R Housing	Presentation /	Oral Questions, Daily Test
17			Rural Settlen Classification	Discussion	Oral Questions
18			Environmental Classificati	Discussion, Probl Solving, Example	
19			Engineering Classification	Discussion	
20			Functional Classification Rural Settlements	Discussion, Collaborative Learning	

21			Functions of Agricult Rural Settlements	Discussion Questioning	Written Test
22			Land Uses in Rural Areas	Discussion	Assessment Meth
23			Rural Uses in the Primi Economy	Discussion, Probl Solving	Oral Questions
24			Rural Uses in the Advar Economy	Discussion, Examples	Oral Questions
25			Non-Agricultural Land Us	Discussion Questioning	Oral Questions, Continuous Assessment Recc
26			Geographical Distributior Rural Settlements Settlement Patterns	Discussion,Examp	Oral Questions, Daily Test
27			Factors Influencing Distribution of R Settlements	Discussion	Oral Questions
28			Morphology of R Housing	Discussion, Probl Solving, Example	Oral Questions, Continuous Assessment Recc Assignments
29			Rural Housing Form	Discussion	Oral Questic Continuous Assessment Recc
30			Rural Housing Design	Discussion	Reports
31			Components of R Housing	Discussion, Probl Solving, Collaborative Learning	Reports, Daily Te
32			Rural Settlement Area	Discussion, Collaborative Learnin	Oral Questions, D Test
33			Environmental Classificati	Discussion Questioning	Oral Questions
34			Engineering Classification	Discussion	Oral Questi Continuous Assessn Record, Assignment
35			Functional Classification Rural Settlement	Discussion, Prob Solving	Oral Questi Continuous Assessn Record
36			Agricultural Selec Functions	Discussion, Examples	Reports
37			Land Uses in Sabah Areas	Discussion, Collaborative Learnin	Oral Questions, D Test
38			Selection Methods Alternative Economics	Discussion	Oral Questi Continuous Assessn Record
39			Selection Methods Advanced Economics	Discussion	Oral Questions, D Test
40			Non-Agricultural Land Us	Discussion	Oral Questi Continuous Assessn Record

11. Course Evaluation

The grade is distributed out of 100 based on the student's assigned tasks, such

as daily preparation, daily, oral, and monthly exams, written work, reports, etc. - Daily preparation: 5 points - Monthly exams: 10 points - Midterm exam: 25 points - Annual work: 40 points - Final exam: 60 points

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Othman Muhammad Ghanem, Rural a Urban Land Use Planning (A Gene Geographic Framework), Safa Publishi and Distribution House, Amman, 2008.
Main references (sources)	-- Salem Khalaf Abdul, Rural Society, Dar Kutub for Printing and Publishi University of Mosul, 1992
Recommended books and references (scientific journals, reports…)	- Rural Geography, by (Dr. Abdul Razz Muhammad Al-Batihi and Dr. Adel Abdull Khattab)
Electronic References, Websites	- Geographical Researcher's Telegram website, - Geographical Library website on Telegra

Course Description Form

1. Course Name:
Observation and Application
2. Course Code:
UOMEG154
3. Semester / Year:
2025/2024
4. Description Preparation Date:
2024/10/1
5. Available Attendance Forms:
Traditional lectures and group application
6. Number of Credit Hours (Total) / Number of Units (Total)
2
7. Course administrator's name (mention all, if more than one name)
Name: Asst. Prof. Dr. Lujayn Salem Mustafa Email: dr.lujayn63@uomosul.edu.iq
8. Course Objectives

Course Objectives	**Introducing students to the basic concepts of tests and how to apply them.** **Preparing implementers who understand the ethics of the teaching profession.** **Grading a cadre capable of understanding the concepts of observation a application.** **Preparing competent teachers capable of performing the teaching task in second schools**…… • ….. • …..

9. Teaching and Learning Strategies

Strategy	- Lecture. - Discussion. - Collaborative learning. - Brainstorming. - Project-based learning. - Problem-based learning. - Mind and concept maps.

	- Inquiry and discovery. - E-learning.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1 2 3 4 5 6 7 8 9 1(1 1 1 1 1 1(1			oretical Aspect One: thics of the Teaching Profession __ Foundations Good Teaching sroom Management and Organization Classroom Questions (Importance __ Types) ual and Daily Teaching Plan up In-Person Application up In-Person Application up In-Person Application up In-Person Application up In-Person Application Mid-year exams Mid-year break Student application period schools	Discussion, brainstorming, mind maps, and examples Discussion, brainstorming, a collaborative learning	Oral Questions, Continuous Assessment Record, Assignment Oral Questio Continuous Assessment Record Reports, Continuou Assessmer Record

11. Course Evaluation

The subject teacher's grade is 40, the supervising professor's grade is 40, the school principal's grade is 10, and the subject teacher's grade is 10
.

Total: 100%

12. Learning and Teaching Resources

Required textbo (curricular books, any)	
Main referen (sources)	
Recommended books and references (scientific journals, reports…)	Practical Education: Theoretical Foundations and Applications, Majid Muhammad Khataybah 2002 • Contemporary Methods in Teaching Social Studies, Hiba Khaled Salim, (2015), Amman • Modern Teaching Strategies and Methods in Geography, Saeed Jassim Al-Asadi and Muhammad Hamid Al-Masoudi, (2015), Amman • Teaching Methods in the Twenty-First Century, Abdul Latif F Faraj (2009), Amman, Jordan
Electronic References, Websi	https://www.drasnln.com/application https://www.youtube.com/ffo19dfkhz4?c=nqybmrcsohfs

Course Description Form

1. Course Name: Measurement and evaluation
Measurement and Evaluation
2. Course Code: UOMEG148
UOMEG148
3. Semester / Year:2025-2024
4. Description Preparation Date:**2024/10/01**
5. Available Attendance Forms:
Traditional lectures and e-learning
6. Number of Credit Hours (Total) / Number of Units (Total)
2
7. Course administrator's name (mention all, if more than one name)
Name: : Dr. Lujayn Salem Mustafa Email: : dr.lujayn63@uomosul.edu.iq
8. Course Objectives

Course Objectives	..... • – **Understanding the basic concepts of assessment and evaluation and their applications**. • – **Preparing researchers capable of designing scientific and educational tests**. • – **Training specialized staff for measurement and evaluation**. • – **Preparing competent teachers to carry out assessment roles in secondary schools**..... .....

9. Teaching and Learning Strategies

Strategy	Lectures Discussions Cooperative Learning Brainstorming

	Project-Based Learning Problem-Based Learning Mind Maps and Concept Maps Inquiry and Discovery E-Learning

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
			Week **Topic**		**ac** **ssment**
			1 Concept of Measurement and Types of Scales	Lecture, Brainstorming	Oral, Written Questions
			2 Concept of Evaluation and its Types and Importance	Lecture, Discussion	Written Assig
			3 Importance of Measurement and Evaluation	Cooperative Learning, Mapping	Observation
			4 Oral and Written Tests	Brainstorming, Lecture	Quiz
			5 Multiple Choice and Completion Questions	Problem Solving, Mapping	Weekly Test
			6 Matching and True/False Questions	Brainstorming, Activity	Quiz
			7 Objective Tests	Brainstorming, Practical	Assignment
			8 Subjective Tests and their Construction	Problem Solving, Lecture	Oral Test
			9 Constructing Blueprints	Problem Solving, Brainstorming	Written Exam
			10 Behavioral Objectives and Specification Table	Lecture, Mapping	Midterm Exa
			11 Characteristics of a Good Test	Cooperative Learning	Activity
			12 Applying Assessment Tools in Classroom	Field Application	Practical Eva
			13 Analysis and Interpretation of Results	Brainstorming, Mapping	Quiz
			14 Mid-Semester Exams	—	Formal Exam
			15 Remedial Activities	—	—
			16 Mid-Year Break	—	—
			17–30 Field Application and Student Project Evaluation	Field Work, Reports	Final Practica Assessment

11. Course Evaluation

Oral Questions	Weekly	5%
Assignments	Every three weeks	5%
Monthly Exams	5%%	
Midterm Exam	25%	
Final Exam	End of academic year	60%
Total	100%	

12. Learning and Teaching Resources

Required textbooks (curricular books, if any	-
Main referen (sources)	Measurement and Evaluation in the Educational Process, Issam Abd Wahab, Al-Kitab Publishing, Iraq, 2002. Modern Trends in Psychological and Educational Evaluation, Kha Al-Rashidi & Abdulkareem Al-Zaidan, Al-Aswar Publishing, 2022.
Recommended books and references (scientific journals, reports…)	Building Psychological and Educational Tests, Shawqi Shaaba Thinking Development Foundation, Baghdad, 2014.
Electronic Referenc Websites	YouTube Lecture on Evaluation Concepts

Course Description Form

1. Course Name:
Fundamentals of Applied Climatology
2. Course Code:
3. Semester / Year:
Annual
4. Description Preparation Date:
6/2/2024
5. Available Attendance Forms:
My presence
6. Number of Credit Hours (Total) / Number of Units (Total)
2 Number of units 6
7. Course administrator's name (mention all, if more than one name)
Name: Dr:Khudhur Jassim Mohammmed Email: khudhur65@uomosul.edu.iq
8. Course Objectives

Course Objectives	• Preparing qualified teachers who have the ability to understand and analyze the Applied climate subject and teach it to students according to an established and modern scientific methodology that serves the specialty it is one of the modern specializations that relate humans. • Developing students skills and awareness and finding solutions to understand the the departments and fields of study of applied climate science. • Training students to exploit modern technologies to familiarize themselves with the latset climate sources and studies of interest subject, and to attending electronic lectures, seminars, and conferences related to applied climate studies.

9. Teaching and Learning Strategies

Strategy	- Discussion, questioning during the weekly lectures, contributions to Training solutions to mathematical probems and statistical methods Used for various applied climate topics . - Encouraging students to understand, analyze science, and find solutions to problems related to the applied envirronment . - Access to modern methods of education and delivery scientific material to students, and transfer of skills and information applied climate sciencs .

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
The first	6		Applied Climatology Concept and Trens his study	discussion	
The second	6		Its definition Sections Analysis Methods measrement	Identify Devices and diagrams	
The third	6		Measuring and Processing Climate Information For devices Used in studies Applied climate Measuring Divices direct	Discussion And solutions For fruits and exercises	
The fourth	6		Study of Transmission By direct means In measuring Using Mathematical And statistical Mean (indirect And how to add Climate data Analysis	Discussion And solutions For Exercises and sexercises	
The fifth	6		Possible Evapotranspiration Calculation Ivanov Thornthwaite... etc and Evapotranspiration Calculation real	Discussion And solutions For exercises and exercises	
VI	6		Drought Calculation Thornthwaite Koppen	Discussion And solutions For Exercises and exercises	
Seventh	6		Calculating The Radiation Budget	Discussion And solutions For exercise	

			(Allen et al)	and exercises	
VIII	6		Calculation the Climate water budget	Discussion And solutions For fruits and training	
Ninth	6		Climatic Classifications: Fundamfntalist Classifications Koppen et al.	DiscussionAn Solutions For the discussion	
The tenth	6		Modern Classifications	Discussion And solutions For the Exercises and training	
Atheistic ten	6		Human Classifications (comfort Zones)	Discussion And solutions For Exercises and exercises	
The Second ten	6		The Ralationship Between Climate and: Agricclture. industry	DiscussionAnd Solutions For Exercises and exercis	
The third	6		Air. Land. And water transportation	Discussion	
The fourth	6		Tourism and entertainment	DiscussionAnd Solutions For fruits and exercises	
Fifteenth	6		Military operations	Discussion	
Sixteen			Mid-year exam		
Eighteen	6		Climate and Society: Physiological Comfort. General health	Discussion And solutions For exercises and exercises	
Nineteenth	6		Urbanism And Building design	Discussion And solutions For Exercises and exercises	
The twentith	6		Climate and Altenative Energy sourcec: Solar radiation energy	Discussion And solutions For exercise and exercises	
Twenty-first	6		Wind enegy	Discussion And solutions For exercise and exercises	
The second the twentith	6		Tidal energy	Discussion And solutions For exercise and exercises	
The third the twentieth	6		Lighting energy	Discussion And solutions For exercise and exercises	
IV and the twentieth	6		Theories that dealt With climate change	Discussion	
V and the twentieth	6		Naturl continental Shift theory. Volcanic	Discussion	

			Dust theory		
VI and the twentieth	6		Astronomical theory. Sunspot theory	Discussion	
Seventh the twentieth	6		Humanity Carbon Dioxide theory dust (Pollution) theory	Discussion	
Twenty-eighth	6		City climate. Climate Change model.its Formation factors and Characteristics. And A General comparison Between it and the Rural climate	Discussion and comparisons	
			End-year exam		

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

- Monthly practical preparation: 5 dgrees
- Monthly theoretical exams: 10 marks
- Mid-year exam: 25 marks
- Annual quest: 40 dgrees
- Final exam: 60 marks

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Applied Climatology Dr: aadel s. Rawi Dr: kousay a. al. Samarrie. 1990.
Main references (sources)	
Recommended books and references (scientific journals, reports…)	- Applied climate geography.Dr. Mohammed ibrahim sharaf. 2005. - Applied Climatology. dr.Ali ahmed al. Ghanem.2010. - Climatology. Dr. Noman shehada. 2009. - al.wajeez in applied climate. Dr. Ali Hassan musa. 1982. - climate regoins. Dr.Ali hussein al- shalash 1981. - general authoity for Meteorology iraq.
Electronic References, Websites	Intenet sits - solid scientific reserch and reports from the Internet with climate Data. - With Climate data from Global websites.

Course Description Form

1. Course Name:	
Modern Geographical Technologies	
2. Course Code:	
UOMEG118	
3. Semester / Year:	
annual	
4. Description Preparation Date:	
15-9-2024	
5. Available Attendance Forms:	
My presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
The number of hours 2 / the number of units 6.	
7. Course administrator's name (mention all, if more than one name)	
Aahed Dhunoon Al-Hamami - aahedalhamamy@uomosul.edu.iq Hussein Ali Rashid - hussein.alzoury@uomosul.edu.iq	
8. Course Objectives	
Course Objectiv	• **1. Developing scientific communication skills regarding geographical concepts studied by the student in previous stages.** • **2. Preparing for the university study phase by relying on learning and scientific research to prepare the student to become a successful teacher and geographical researcher.** • **3. Equipping the student with skills to handle modern geographical information.** • **4. Teaching the student methods of using geographical technology programs, both offline and online.** • **5. Instilling in the student a positive motivation towards study contemporary geographical technologies.**
9. Teaching and Learning Strategies	
Strategy	Discussion and questioning through weekly lectures, posi questions, and linking them to real-life scenarios.

10. Course Structure

Week	Hours	Unit or subject name	Learning method	Evaluation method
1. The first 2. The second 3. The third 4. The fourth 5. The fifth 6. The sixth 7. The seventh 8. The eighth 9. The ninth 10. The tenth 11. The eleventh 12. The twelfth 13. The thirteenth 14. The fourteenth	2 2 2 2 2 2 2 2 2 2 2 2 2 2	1. The concept of geographical technologies 2. Remote sensing and its importance 3. Remote sensing satellites 4. Data in remote sensing 5. Image analysis and interpretation 6. Evolution and production of maps 7. Applied geographical research 8. Production of digital maps 9. Midterm exam 10. Types and sources of data 11. Functions of technologies and GIS 12. Geographic databases 13. Descriptive data in databases 14. Geographic applications for DEM 15. Total station surveying instrument	Presentations Illustrative films Practical applications Discussion, questioning, and presentation	Daily quizzes and monthly exams

11. Course Evaluation

Grade distribution out of 100 based on the tasks assigned to the student, such as daily preparation, daily oral and written exams, monthly assessments, reports, etc.:

- Midterm exam: 20 points
- Final exam: 50 points
- Teacher's evaluation: 30 points

12. Learning and Teaching Resources

Required textbooks (curricular books, if any	
Main references (sources)	Geographic Information Systems - Jumaa Dawood Geographic Information Systems - Ali Abdul Abbas
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	

Course Description Form

1. Course Name:
The history of ancient Iraq
2. Course Code:
Lectures in Ancient History
3. Semester / Year:
Annual
4. Description Preparation Date:
01/02/2025
5. Available Attendance Forms:
In-person
6. Number of Credit Hours (Total) / Number of Units (Total)
2Hours / 2 Units
7. Course administrator's name (mention all, if more than one name)
Asst. Prof. Dr. Amira Ismail Al-Ubaidi – Email: amira.alubidi@yahoo.com
8. Course Objectives

Course Objectives	This course aims to prepare competent and skilled male and female teachers in the subject of ancient history for intermediate and secondary schools, capable of managing classrooms and applying their theoretical knowledge to achieve educational goals.
9. Teaching and Learning Strategies	
Strategy	1. Following up on and keeping pace with all references and sourc related to ancient history topics, including books, journals, articl research, and internet resources. 2. Utilizing modern technology in presenting lectures throu computers.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1					

2					
3					
4					

11. Course Evaluation

Monthly Exams: 10 Marks

Midterm Exam: 25 Marks

Final Exam: 60 Marks

12. Learning and Teaching Resources

Required textbooks (curricular boo if any)	Lectures in Ancient Iraqi History, by Salem Ahm Younis, University of Mosul, 2017
Main references (sources)	1. *Introduction to Ancient Civilizations*, Part I, Abdul Qadir Al-Sheikhly, Mosul, 1995 2. *Lectures in Ancient Iraqi History*, Salem Ahm Younis, 2017 3. Various sources covering ancient Iraq, includin ○ *A Brief History of Ancient Iraq*, by Am Suleiman
Recommended books and references (scientific journals, reports…)	Any reference or research that enhances students' knowledge and skills in teaching ancient history.
Electronic References, Websites	"The Power of Assyria," by Henri Sachs, translated by Amer Suleiman: http://www.iraqnla.gov.iq/opac/index.php?q Mona Abdul Kareem Al-Qaisi, The Sumerian Early Dynastic Period: https://arch.uokufa.edu.iq/archives/4777

Course Description Form

1. Course Name:
Geography of Transport and International Trade
2. Course Code:
UOMEG144
3. Semester / Year:
Annual
4. Description Preparation Date:
01/09/2024
5. Available Attendance Forms:
Traditional lectures Blended learning E-learning
6. Number of Credit Hours (Total) / Number of Units (Total)
Hours (2) Units (4)
7. Course administrator's name (mention all, if more than one name)
Name: Asst. Prof. Dr. Mohammed Hashim Thanoon Email: dr.mohammed.hashemi@uomosul.edu.iq

8. Course Objectives

Course Objectives	1. Introduce students to the basic concepts related to the geography of transport and international trade. 2. Enable students to identify the types of land, air, and sea transport systems and the types of international and interregional trade. 3. Analyze the spatial relationships between transport systems and natural and human geographical phenomena. 4. Develop students' skills in studying the relationship between humans and the environment in the fields of transport geography. 5. Provide students with knowledge of quantitative methods and theories that reveal the importance of transport and trade geography.

9. Teaching and Learning Strategies

Strategy	- Lecture. - Discussion. - Collaborative learning. - Brainstorming.	- Project-based learning. - Problem-based learning. - Mind and concept maps. - Inquiry and discovery.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	1,2	The concept of transportation and	Discussion,	Oral questio
2	2	1,2	importance in sustainable development	Brainstormi	continuous
3	2	2,3	Main components of transportat	Cooperative	assessment rec
4	2	2,3	systems	Learning	
5	2	1,2	The concept of transportation geograp		
6	2	1,3	and its methodological requirements		
7	2	2,3	The impact of geographical locati		
8	2	1,3	geological structure, and surface featu		
9	2	2,3	on transportation systems		
10	2	1,3	The impact of water resources, clima		
11	2	1,3	characteristics, and mineral resources		
12	2	1,3	transportation systems		
13	2	1,3	Geography of land transport		
14	2	2,4	automobiles		
15	2	1,3	Geography of land transport by railway		
16	2	1,3	Geography of land transport by pipeline		
17	2	1,4	Geography of seaports		
18	2	1,3	Mid-year exams		
19	2	3,4	Mid-year break		
20	2	1,3	Geography of Ship and Marine Carr		
21	2	1,3	Movement		
22	2	1,3	The Relationship Between Mariti		
23	2	1,3	Transport and International Trade		
24	2	1,3	Geography of Air Transport		
25	2	1,3	Airports, Their Business Requiremer		
26	2	1,3	and Types		
27	2	2,4	Global Air Transport		
28	2	1,3	Student application period in schools		
29	2	1,3	The concept of international trade and		
30	2	2,4	main conditions for its establishment		
			The natural and human geographi		
			factors responsible for international tra		
			The qualitative commodity composition		
			exports and imports		

11. Course Evaluation

Monthly tests 15 %
Midterm exam 25%
Final exam 60%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Dr. Saadi Ali Ghaleb, Geography of Transport and International Trade, University of Mosul 1978
Main references (sources)	Dr. Muhammad Azhar Al-Samak and others Transp

	Geography: Between Methodology and Application 2011
Recommended books and references (scientific journals, reports…)	Dr. Muhammad Hashim Thanoon, Spatial Modeling Assess the Density of the Motorway Network in Ir Tikrit University Journal, 2013 Dr. Muhammad Hashim Thanoon, Air Transport Geography in Iraq, Journal of the College Education for Humanities, University of Mosul, 2021
Electronic References, Websites	Dr. Muhammad Hashim Thanoon, Productive Efficiency of Seaports in Iraq, Journal of the College of Basic Education, Al-Mustansiriya

Course Description Form

1. Course Name:
Geography of dry regions
2. Course Code:
3. Semester / Year:
annual
4. Description Preparation Date:
11/9/2024
5. Available Attendance Forms:
Presence
6. Number of Credit Hours (Total) / Number of Units (Total)
2 Hours Total (60 hour) Number of units 4 (Total120 units
7. Course administrator's name (mention all, if more than one name)
ame: A.P.Dr.Surah Bader Hussein Email: : Dr.surah.bader@uomosul.edu.iq
8. Course Objectives

Course Objectives	**Introducing students to the concept of drought, its types, causes, and methods for calculating it.** **The geographical distribution of drylands.** **The importance of studying drylands.**
9. Teaching and Learning Strategies	
Strategy	- Discussion, questioning during weekly lectures, presenting realistic examples of the dry regions - Encouraging students to understand, analyze scientifically, and find solutions to problems related to the.

	entify the most important dry regions climatic patterns and compare - .them

10. Course Structure

11. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1			e Concept of Drought and Its Causes The Concept of Drylands.	Discussion	
2			Natural causes of drought Geographical distribution of dry areas around the world Dry areas in the Arab world	Discussion	
3			Arid Climate ifferences in climate classifications for defining arid regions. .Köppen classification	Discussion	
4			Climatic characteristics in arid regions Solar radiation Temperature Evaporation	Discussion	

			Humidity and rainfall		
5			The climate of arid and semiarid regions, both cold and hot he climate of hot semi-arid regions The climate of cold semi-arid regions	Discussion	
6			Hot arid climate Cold arid climate The climate of arid and semiarid regions in the Arab world Climate change in drylands	Discussion	
7			Geomorphology in arid areas Climate is a fundamental factor in shaping surface formations.	Discussion	
8			2- Landforms in deserts.	Discussion	
9			.Landforms formed by erosion Landforms formed by weathering - ndform formed by sedimentation -	Discussion	
10			Landforms in semi-arid regions haracteristics of the dry land surface of Arabia	Discussion	

11			Discussion		
12			Semester exam		
13			Theoretical exam (mid-year)		
14			Theoretical exam (mid-year)		
15					
16					
17			Dryland water resources . development of arid regions mary sources of water in arid .lands	Discussion	
18			me solutions for water use in arid - .lands Vater resources in Arab arid lands -	Discussion	
19			Dryland Population opulation distribution and - .density in drylands	Discussion	
20			Factors affecting population - distribution and variation in .population density ariation in the standard of living of .the inhabitants of arid lands Oil and its impact on the economic and social development of the habitants of arid lands, particularly .the Arab arid lands	Discussion	
21			Agriculture in arid regions	Discussion	

			The nature of the soil and its suitability for agriculture in arid .regions		
22			Pastoralism in Drylands Pastoralism is a basic . ccupation for people living in .drylands Natural and human factors - affecting pastoralists' .movement .Problems of pastoralism .	Discussion	
23			The decline in the number of storalists in drylands and its .causes xample ofpastoral settlement projects in the Arab world to develop drylands	Discussion	
24			The Future of Drylands Addressing Natural Problems - Addressing Economic Problems -	discussion	
25			Semester exam		
26			final exam		

27			final exam		
28			final exam		

12. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

13. Learning and Teaching Resources

Required textbooks (curricular books, if any)	There is no/ new material.
Main references (sources)	Geography of Dry Lands, Qusay Abdul Majeed Samarrai, Abdul Mukhur Al-Rayhani, Baghd University Press, 1990
Recommended books and references (scientific journals, reports…)	ography of Arid Regions: A ographical-Environmental Perspective, ssan Ramadan Salama, Dar Al-Masirah Publishing and Distribution, Amman, Jordan, 2012 ylands, Kenneth Walton, translated by Abdel Wahab Shaheen, Maaref .Establishment, Alexandria, 1990
Electronic References, Websites	- Reliable scientific reports and reports from the Internet, official websites, and climate datafor dryland United Nations Convention to Combat Desertification (UNCCD) 2017 Jnited Nations Environment Programme (UNEP) ood and Agriculture Organization (FAO) ,Telegram researcher website

	Geographical Library website on - Telegram

Course Description Form

1. Course Name: Geography of tourism

2. Course Code: : UOMEG134

3. Semester / Year: 2024–2025

4. Description Preparation Date:1/9/2024

5. Available Attendance Forms: : In-person - electronic class

6. Number of Credit Hours (Total) / Number of Units (Total) 6 hours a week

7. Course administrator's name (mention all, if more than one name)

Name: Hussein Ali Aran
Email: huseen.ali@uomosul.edu.iq

8. Course Objectives

Course Objectives	entify the basic and methodological principles of the ism geography subject entify the natural and human graphical foundations of the graphy of tourism

9. Teaching and Learning Strategies

Strategy	Theoretical and practical lecture, dialogue and discussions, oral questions

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		The concept tourism scier and its elements	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
2	2		The concept tourism geograph	Lecture, brainstorm,g	Oral questi continuous assessment rec assignments

				examples	
3	2		The relationsh between geograp and tourism	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
4	2		Development tourism science	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
5	2		Research metho and approaches tourism geograph	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
6	2		Characteristics a features of touri geography	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
7	2		The importar and objectives tourism geograph	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
8	2		Positive a negative aspects tourism	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
9	2		Natural, human a economic foundations tourism	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
10	2		Types of tourism	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
11	2		Types of touri related to t natural aspect	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
12			First semes exam	Lecture,	Oral questi continuous assessment rec

				brainstorm,g examples	assignments
13 14 15			Mid-year exams	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
16 17			Half year holiday	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
18	2		Tourism planning	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
19	2		Tourism development	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
20	2		Sustainable development a its relationship tourism planning	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments
21	2		Practical examp of sustainal tourism development	Lecture, brainstorm,g examples	Oral questi continuous assessment rec assignments

11. Course Evaluation

The grade is distributed out of 100 based on the student's assigned tasks, such as daily preparation, daily, oral, and monthly exams, written work, reports, etc.

- Daily preparation: 5 points
- Monthly exams: 10 points
- Midterm exam: 25 points
- Annual work: 40 points
- Final exam: 60 points

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	The geography and economics of modern tourism / Ma Maluk Al-Samarrai
Main references (sources)	Geography of tourism / Majeed Maluk Al-Samarrai
Recommended books and references (scientific journals, reports…)	Geography of Tourism / Subhi Ahmed Al-Dulaimi
Electronic References, Websites	

Course Description Form

1. Course Name:
Micro climatology
2. Course Code:
3. Semester / Year:
annual
4. Description Preparation Date:
11/5/2025
5. Available Attendance Forms:
Presence
6. Number of Credit Hours (Total) / Number of Units (Total)
2Hours Total (60 hour) Number of units 4 (Total120 units
7. Course administrator's name (mention all, if more than one name)
Name: A.P.Dr.Surah Bader Hussein Email: **Dr.surah.bader@uomosul.edu.iq**
8. Course Objectives

Course Objectives	• **Preparing qualified teachers who have the abil to understand and analyze the subject of detai climate science and teach it to students according to an established and modern scientific methodology that serves the specialt** • **Developing perception, causality, and questioning skills and finding solutions to the to understand the sections and fields of study detailed climate science.** • **Training students to exploit modern technolog to view the latest climate sources and studies interest to the subject, and to attend electroni lectures, seminars, and conferences that specialize in detailed climate studies……** ….. …..

9. Teaching and Learning Strategies

Strategy	
	Discussion, questioning during weekly lectures, presenti realistic examples of the detailed climate - Encouraging students to understand, analyze scientifica and find solutions to problems related to the detailed climat - Identify the most important detailed climate patterns a compare them. - Access to modern methods of teaching, delivering scienti material to students, and transferring skills and informati related to detailed climate science

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		Define the concept of microclimatology.	discussion	
2	2		Evolution of ed microclimatology	Discussion	
3	2		Research methods and tools in microclimatology	Discussion	
4	2		Using remote sensing to study microed weather and climate	Discussion	
5	2		The importance of studying the detailed climate Methods that can be adopted in studying climate	Discussion	
6	2		Selected models of micro cave climate	Discussion	
7	2		Forest climate	Discussion	

8	2		Soil surface climate	Discussion	
9	2		Climate of snow, ice and water surfaces	Discussion	
10	2		Mountain climate	Discussion	
11	2		Valley climate	Discussion	
12	2		Semester exam		
13	2		Theoretical exam (mid-year)		
14	2		Theoretical exam (mid-year)		
15	2		Desert climate	Discussion	
16	2		Criteria for determining desert climate	Discussion	
17	2		Types of deserts	Discussion	
18	2		Climate of the city and the surrounding countryside	Discussion	
19	2		Factors that help shape the city's climate	Discussion	
20	2		The basic characteristics of the city's climate	Discussion	
21	2		A general comparison between the climate of the city and the surrounding countryside	Discussion	
22	2		Climate in closed environments	Discussion	

23	2		Room climate and car climate	Discussion	
24	2		Discussing student research	discussion	
25	2		Semester exam		
26	3		final exam		
27	3		final exam		
28	3		final exam		

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any	There is no new material.
Main references (sources)	-The Micro Climate, Ali Hassan Mu Damascus Publishing and Distributi House, 1991
Recommended books and references (scientific journals, reports…)	1 - Local Climate, Ahmed Saeed Hadid, and others, Ibn Al-Atheer Press, University of Mosul, 1981. 2-Climatic and vegetation geography, Abdel Aziz Tareeh Sharaf, Dar Al-Ma'rifa University, 2000. 3- Geography of Climate Regions, Ali Hassan Musa, Damascus University Press, 2016 4- Geography of Climate and Plants, Youssef Abdel Majeed Fayed, Dar Al-Fikr Al-Arabi, 1969. 5 Weather Geography, Ibrahim Ibrahim Sharif, Ministry of Higher Education and Scientific Research, Book One, 1991.
Electronic References, Websites	- Solid scientific research and reports from the Internet, official websites, and climate data

Course Overview

Course Title	**natural resources**
Course Code	
Course Coordinator	**Lecturer Asmaa Khalid Jargis**
Course Coordinator's Signature	
Program	**Bachelor in Geography**
Department	**Geography**
College	**College of Education for Humanities**
University	**University of Mosul**
Date of Description Preparation	**2024/10/01**
Course Update Rate	**%10**

1. Course Title
natural resources
2. Course Code
3. Course Coordinator
Lecturer Asmaa Khalid Jargis **Email:** Asmaa.garges86@uomosul.edu.iq
4. Type of Course
University Requirement ☐ College Requirement ☑ Department أ. Requirement ☑ Mandatory ☐ Elective ب. ☑ Specialization ☐ Educational ☐ Psychological ☐ Other ج.
5. Semester / Academic Year
Academic Year: **2024–2025**
6. Level at Which the Course is Offered
Third Year

7. Number of Hours and Credit Units							
Total Units		Total Hours		Credit Units		Credit Hours	
66		44		3		2	
Practical	Theoretical	Practical	Theoretical	Practical	Theoretical	Practical	Theoretical
22	44	22	22	1	2	1	1

8. Available Attendance Modes (Study Format)			
(%) Percentage	Number of Teaching Hours	Attendance Format	N
86.36	38	Traditional Lectures	1
-	10	Blended Learning	2
-	6	E-Learning	3
-	-	Distance Learning	4
-	-	Other (e.g., Laboratory)	5
100	44	Total	

9. Course Objectives
1. **Introducing students to the basic concepts related to natural resources and the Earth's spheres** (lithosphere, hydrosphere, atmosphere, biosphere), and understanding the relationship between these spheres and their impact on different environments.
2. **Enabling students to recognize the importance of natural resources** and the mechanisms for their conservation and sustainability by shifting toward environmentally friendly resources, minimizing future harm, and avoiding climate change.

3. **Developing third-stage students' ability to interpret and analyze** in order to solve problems affecting the four spheres, by enhancing human resource capabilities for optimal investment without compromising the reserves of future generations.
4. **Increasing students' field visits to strategic projects** related to (water security, food security, and green education).
5. **Enhancing students' scientific and cognitive capabilities** by preparing reports on pioneering projects and marketing mechanisms for them.

10. Teaching and Learning Strategies
Lecture
discussion
Collaborative Learning
Brainstorming
Project-Based Learning
Problem-Based Learning
Investigating and identifying natural problems before they develop into phenomena that are difficult to solve.
Inquiry and Discovery Learning
E-Learning
Field Trips

11. Expected Learning Outcomes for the Course

Knowledge	Learning Outcome Code	Learning Outcome Code Related to the Program	
	N	**N**	
The student identifies the basic concepts related to the Earth's spheres and their relationship to sustainable development.	1	1	
The student interprets the causes of problems within the Earth's spheres that have affected the ecosystem.	2	1	
The student analyzes the outcomes of adopting natural resource sustainability and shifting toward environmentally friendly materials**.**	3	1	.
The student determines the possibility of reducing pressure on	4	1	

natural resources by relying on technological development**.**			
A mechanism to engage students in proposing simple solutions to problems, or at the very least, participating in volunteer activities related to the subject of natural resources, such as tree planting campaigns**.**	5	1	
Emphasis on the student's ability to understand the laws related to the mechanisms of investing in natural resources**.**	6	1	
Skills	Learning Outcome Code	Learning Outcome Code Related to the Program	
	M	M	
Ability to collect data and information from relevant institutions according to the topics assigned for preparing reports.	1	1	
Present scientific reports on the topics of natural resources using accurate research methods and the use of artificial intelligence.	1	2	
Organize and participate in awareness campaigns to raise public awareness about the importance of natural resources and the need to preserve the reserves for future generations.	1	3	
Develop the student’s cognitive and technical skills, including the use of Geographic Information Systems (GIS).	1	4	
Find alternative solutions through scientific and technical approaches aimed at serving the population and preserving the stock of natural resources.	1	5	
Preserving natural resource reserves contributes to solving future problems..	1	6	
Values	Learning Outcome Code	Learning Outcome Code Related	

		to the Program	
	ق	ق	
Develops a sense of responsibility toward the environment and promotes positive environmental behavior.	1	1	
Commits to sustainable environmental practices and encourages others to adopt them.	2	2	
Shows interest in environmental issues and participates in community environmental initiatives.	3	2	
Promotes teamwork and collaboration in solving environmental problems.	4	1	
Values the importance of environmental legislation and advocates for its implementation to protect environmental resources for future generations.	5	1	

12. Course Structure

Assessment	Learning Method	Unit or Topic Name	Required Learning Outcomes			Hours	Week
			ق	م	ع		
○ Oral Questions ○ Continuous Assessment Record ○ Assignment	○ Discussion ○ Brainstorming ○ Mind Mapping ○ Providing Examples	The concept of natural resources and the divisions of the spheres	1	-	1	2	1
○ Oral Questions ○ Continuous Assessment Record	○ Providing Examples and discussion	Lithosphere	1، 2	-	1	2	2
○ Continuous Assessment Record ○ Assignment	○ Discussion ○ Brainstorming	Hydrosphere	2	1،2	1	2	3

○ Oral Questions ○ Continuous Assessment Record	○ Discussion ○ Brainstorming ○ Mind Mapping ○ Providing Examples	Atmosphere	2، 3	2	2	2	4
Daily Test	○ Discussion ○ Brainstorming ○ Mind Mapping ○ Providing Examples	Biosphere	4، 3	2،1	3	2	5
○ Oral Questions ○ Continuous Assessment Record ○ Assignment	Discussion, Problem-Solving, Collaborative Learning, and Providing Examples	The concept of sustainable development and its importance in sustaining the spheres	4، 3	6،4، 1	3	2	6
						2	7
○ Oral Questions ○ Continuous Assessment Record	○ Discussion ○ Brainstorming ○ Mind Mapping ○ Providing Examples	The role of Geographic Information Systems (GIS) in discovering and managing natural resources	4، 3	6،4	3	2	8
						2	9
○ Oral Questions ○ Continuous Assessment Record	○ Discussion ○ Brainstorming ○ Mind Mapping ○ Providing Examples	The role of artificial intelligence in the agricultural sector	4، 3	6،4	3	2	10
						2	11
○ Oral Questions ○ Continuous Assessment	○ Discussion ○ Brainstorming ○ Mind Mapping ○ Providing Examples	Green economy	4، 3	6،4	3	2	12

Record							
Written Exam	Term 1 Exam					2	13
Term1-Mid Exam							14 15 16
Mid-year Holiday							17 18
○ Oral Questions ○ Continuous Assessment Record	○ Discussion ○ Brainstorming ○ Mind Mapping ○ Providing Examples	Biosphere	4، 3	6،4، 1	3	2	19
○ Oral Questions ○ Continuous Assessment Record	Inquiry and Discovery, Brainstorming, Providing Examples	The concept of human resources and its importance	4، 3	6،4، 2	3	2	20
Reports	discussion sessions	The emergence of organizations and the development of labor unions related to human resources	4، 3	5،2، 1	5، 4	2	21
Reports and daily exam	○ discussion ○ Problem Solving ○ Collaborative Learning	Objectives of developing human resources capabilities	4، 3	5،2	5، 4	2	22
○ Oral Questions	○ Discussion	Good governanc	4، 3	5،2	5، 4	2	23

○ Continuous Assessment Record ○ Assignments	○ Collaborative Learning	e. Effective management of human resources employment					
○	○ Collaborative Learning	Decision preparation and decision-making	3, 4	2,5	4, 5	2	24
○	○ Discussion	Climate change	3, 4	2,5	4, 5	2	25
○	○ Interactive lecture	The 2005 United Nations Framework Convention on Climate Change (UNFCCC) – Paris Climate Agreement	3, 4	2,5	4, 5	2	26
○	○ Interactive lecture	The concept of desertification	3, 4	2,5	4, 5	2	27
○	○ Discussion	Mechanism for combating desertification	3, 4	2,5	4, 5	2	28
○ Oral Questions ○ Daily exam	○ Discussion ○ Brainstorming ○ Providing Examples	Food security	4، 3	5،2	5، 4	2	29
○ Oral Questions ○ Daily exam	○ Interactive Lectures ○ Discussion ○ Providing examples	Water security	5	1	6	2	30
○ Oral Questions ○ Daily exam	○ Interactive Lectures ○ Discussion	Intellectual security	5	1	6	2	31

14. Learning and Teaching Resources

Written Test	Term2 Exam					2	32

13. Course Evaluation			
N	Assessment Activities:	Assessment Time	Percentage of Total Assessment Score
1	Oral Questions	All Weeks	**5%**
2	Assignments (reports, 3D models, field visits) Participation in the Sustainable Development Festival	Monthly and yearly	**5%**
3	Monthly Tests	Week 13 and Week 32	**5%**
4	Mid-Term Exam	Week 10	**25%**
5	Final Exam	End of the Academic Year	**60%**
Total			**100%**

----------	Required (Textbooks)
Economics of Natural Resources. Economics of Agricultural Activity. Economics of Population. The Problem of Food Security. Dr. Sayed Mohamed Ahmed. Alexandria University. University Education House. Sustainable Development. Exploitation of Natural Resources and Renewable Energy. Nizar Awni Al-Lubdi.. atural Environmental Resources in the Arab World and Their Important Issues. Ahmed Al-Sarwi. International Scientific Publishers	Main References (Sources)
- Environment International: https://www.sciencedirect.com/journal/environment-international Journal of Environmental Studies and Sustainable Development https://asjp.cerist.dz/en/PresentationRevue/978 - World Meteorological Organization | Update on the Climate Status for 2024 https://library.wmo.int/viewer/69075/download?file=State-Climate-2024-Update-COP29_en.pdf&type=pdf&navigator=1 -World Meteorological Organization | Greenhouse Gas Bulletin 2024 https://library.wmo.int/viewer/69057/download?file=GHG-20_en.pdf&type=pdf&navigator=1	Recommended Supporting Books and References (Scientific Journals, Reports, etc.)
- https://www.environment.gov.au/about-us/environmental-information-data/erin - **https://esri.com**	Electronic References:

15. Course Description Approval	
Accrediting Authority	College Council
Session Number	
Session Date	

Course Description

Course name:	**Thematic maps**
Course code:	**UOMEG119**
Course Coordinator:	**Prof. Dr. Lamia Hussein Ali Ahmed**
Signature of the responsible officer:	
Program:	**Bachelor's degree in Geography**
Scientific section:	**Geography**
College:	**Education for Human Sciences**
University:	**University of Mosul**
Description preparation date:	**01/10/2024**
Curriculum update rate:	**10%**

1. Course Name
Thematic maps
2. Course Code
UOMEG1193
3. Name of the Course Responsible (if there are multiple names, list them)
Asst.L. Sabah Omar Suleiman Email: sabah1979@uomosul.edu.iq
4. Course Type
A - Institutional Requirement (University) ☐. College Requirement ☐. Department Requirement ☐ Mandatory ☑. Optional ☐. C. Specialized ☑. Educational ☐. Psychological ☐. Other ☐
5. Semester / Year
Academic Year 2024-2025
6. Level at which the course is offered
Second Level

7. Number of hours and study units							
Number of credit hours		Number of credit units		Total hours		Total units	
2		3		52		66	
theoretical	practical	theoretical	practical	theoretical	practical	theoretical	practical
1	1	2	1	26	26	52	26

8. Available Attendance Forms (Study Mode)			
N	Attendance Form	Number of Teaching Hours	Percentage (%)
1	Traditional Lectures	46	88.47
2	Blended Learning	-	-
3	E-Learning	6	11.53
4	Distance Learning	-	-
5	Other (Laboratory)	-	-

Total	**52**	**100**

9. Course Objectives
1. To introduce students to the basic concepts of general maps and thematic maps in particular
2. To enable students to identify the different types of thematic maps
3. To analyze the various methods of cartographic representation and data encoding in the context of thematic maps
4. To develop students' skills in studying the relationship between different methods of cartographic representation for the various symbols used
5. To impart to students a preliminary knowledge of the programs used for drawing, displaying, processing, and analyzing both general and thematic maps.

10. Teaching and Learning Strategies
– **Lecture**
– **Discussion**
– **Cooperative Learning**
– **Brainstorming**
– **Project-Based Learning**
– **Problem-Based Learning**
– **Mind Mapping and Concept Mapping**
– **Inquiry and Discovery**
– **E-Learning**
– **Field Trips**

11. Expected Learning Outcomes for the Course		
Program-Related Learning Outcome Code	**Learning Outcome Code**	**Knowledge**
N	**N**	
1	**1**	**The student defines the basic concepts related to thematic maps The student defines the basic concepts related to thematic maps**
1	**2**	**The student analyzes the reasons for diversity present in thematic maps**
1	**3**	**The student distinguishes between different types of data used to represent surface phenomena.**

1	4	The student identifies the basic problems in the graphical representation of mapping symbols in thematic maps.
1	5	The student discusses proposed solutions in the graphical representation of symbols used in thematic maps
1	6	The student explains the rules and principles in cartographic representation methods in the context of thematic maps.
Learning Outcome Code Program-Related	Learning Outcome Code	Skills
M	M	
1	1	The student collects data used from multiple and diverse sources.
1	2	The student presents scientific reports on issues related to thematic maps using precise research methods.
1	3	The student organizes and participates in exhibitions and conferences for the Department of Geography within the cartographic drawing activities
1	4	The student uses methods to classify and categorize data used in geographic representation.
1	5	Design and draw thematic maps related to the topics and environments that the student is present in
1	6	Interprets thematic maps according to the type and mechanism of cartographic representation used in them.
Learning Outcome Code Program-Related	Learning Outcome Code	Values
Q	Q	
1	1	linked to the program.Develops a sense of responsibility towards the prescribed curriculum and its role in all branches and fields of geography.
2	2	Adheres to the scientific basis in producing and drawing thematic maps
2	3	Shows interest in cartography, which is connected to maps in every department and branch in geography
1	4	Enhances the spirit of teamwork and collaboration in solving and understanding thematic maps
1	5	Appreciates the importance and role of thematic maps in understanding the distribution and spread of geographical phenomena on Earth

12. Course Structure							
Assessment Method	Learning Method	Unit or Topic Title	Required Learning Outcomes			Hours	Week
			Q	M	N		
ongoing assessment log, assignments	Discussion, brainstorming, mind maps, illustrating, oral questions	The concept of thematic maps	1	-	1	2	1
oral questions, ongoing assessment log	Discussion, illustrating	Types of thematic maps	1,2	-	1	2	2
reports, ongoing assessment log	Discussion, brainstorming, collaborative learning	Contents and resources for thematic mapping	2	1،2	1	2	3
oral questions, ongoing assessment log	Discussion, brainstorming, mind maps, illustrating	Geographic data types and symbols used to represent them	2,3	2	2	2	4
daily testing	Discussion, brainstorming, mind maps, illustrating	Geometric, pictorial, and expressive symbols in maps	3,4	1,2	3	2	5
reports, ongoing assessment log, assignments	Discussion, problem solving, collaborative learning, illustrating	Quantitative representation in thematic maps	3,4	1,4,6	3	2	6
						2	7
oral questions, ongoing assessment log	Discussion, problem solving, brainstorming, illustrating	Free-form place symbol maps	3,4	4,6	3	2	8
						2	9
oral questions, and continuous assessment log	discussion, problem solving, brainstorming, examples	Point maps	3,4	4,6	3	2	10
						2	11
oral questions, and	discussion, problem solving,	Symbol maps	3,4	4,6	3	2	12

continuous assessment log	brainstorming, examples						
oral questions	General review					2	13
Mid-year exams							14 15 16
Mid-year break							17 18
oral questions, continuous assessment log, assignments	Discussion, problem solving, brainstorming, illustrating	Area ratio and density maps	3,4	1,4,6	3	2	19
oral questions, continuous assessment log	: Investigation and discovery: Brainstorming, illustrating	Methods for identifying categories in density and gradient maps	3,4	2,4,6	3	2	20
reports, daily test	Discussion, problem solving, cooperative learning	Zone maps	3,4	1,2,5	4,5	2	21
: Written test	Monthly midterm exam		3,4	2,5	4,5	2	22
oral questions, continuous assessment log, assignments	Discussion, cooperative learning	Zone and patch maps	3,4	2,5	4,5	2	23 24
oral questions, daily test	Discussion, brainstorming, illustrating	Color space representation	3,4	2,5	4,5	2	25
oral questions, daily test	Interactive lectures, discussion	Line symbols	5	1	6	2	26 27
oral questions, daily test	Discussion, interactive lectures	Isometric lines	5	1	6	2	28

oral questions, continuous assessment log	Investigation and discovery: Brainstorming, illustrating	Motion symbols	5	1	6	2	29
oral questions, continuous assessment log	Investigation and discovery: Brainstorming, illustrating	Thematic maps and computers	5	1	6	2	30
Oral Exam	General Review					2	31

13. Course Evaluation			
Percentage of the total evaluation score	Assessment Time	Assessment Activities	N
5%	all weeks	Oral questions and attendance	1
5%	every three weeks	Assignments	2
5%	week 22	Monthly tests	3
25%	week 13-15	Midterm exam	4
60%	at the end of the academic year	Final exam	5
100%	Total		

14. Learning and teaching resources	
– Bahjat Muhammad Muhammad, Safiya Jar Eid, Thematic Maps, Damascus University Publications, Qamha Brothers Press - Damascus,	Required textbooks (methodology if available)
– Nasser bin Muhammad bin Salma, Human Distribution Maps, Al-Ubaykli Library, Riyadh, 1995. – - Muhammad Muhammad Satiha, Distribution Maps, Bibliotheca Alexandrina, 1970. – - Muhammad Subhi Abdul Hakim, Maher Al-Laithi, Cartography, Cairo, Egypt, Anglo-Egyptian Library, 1966. – - Abdul Murshid Al-Azzawi, Principles of General Maps, Damascus University, 1984. – - Ahmad Najmuddin Falijah, Practical Geography and Maps, University Youth Foundation, Alexandria, 1990. – - Bahjat Muhammad Muhammad, Principles of Topography and Cartography, Damascus University, 1996. – Clarek,K: Analytical and Computer Cartography, Hunter College city, University of New York .USA 1990 – Robinson, A,Sale,R and Morrison: Elements of Cartography ,6th edition , Jon & Willy, 1995.	Main References (Sources)
– - Khalid bin Sulaiman bin Salem Al Kharousi, Topography and the Development of Cartography, Map Reading and Land Navigation, Dar and Library Al Hilal, Beirut, 2006. – - Founder of the Arab Journal of Sciences and Research Publishing. – - The Arab Journal of Geographical Studies. – Journal of the Center for Cartographic Research.	Recommended supporting books and references (scientific journals, reports...)
– http://www.gis.club.com – https://www.esri.com – https://daralmaerifa.com – https://www.dz-techs:com,fun-map-sites-interesting-cartography	Electronic references, websites

15. Description approval	
Department Council	Accrediting Authority
	Session Number
	Session Date

Course Description

Course name:	**Geography of Industry**
Course code:	**UOMEG128**
Course Coordinator:	**Asst.L. Rakan Sultan Mustafa**
Signature of the responsible officer:	
Program:	**Bachelor's degree in Geography**
Scientific section:	**Geography**
College:	**Education for Human Sciences**
University:	**University of Mosul**
Description preparation date:	**01/10/2024**
Curriculum update rate:	**10%**

1. Course Name
Thematic maps
2. Course Code
UOMEG128
3. Name of the Course Responsible (if there are multiple names, list them)
Asst.L. Rakan Sultan Mustafa Email: rakan.sultan@uomosul.edu.iq
4. Course Type
A - Institutional Requirement (University) ☐. College Requirement ☐. Department Requirement ✓. Mandatory ✓. Optional ☐. C. Specialized ✓. Educational ☐. Psychological ☐. Other ☐
5. Semester / Year
Academic Year 2024-2025
6. Level at which the course is offered
Second Level

7. Number of hours and study units							
Number of credit hours		Number of credit units		Total hours		Total units	
2		4		52		104	
theoretical	practical	theoretica	practical	theoretical	practica	theoretical	practical
2		4	0	52	0	104	0

8. Available Attendance Forms (Study Mode)			
N	Attendance Form	Number of Teaching Hours	Percentage (%)
1	Traditional Lectures	46	88.47
2	Blended Learning	-	-
3	E-Learning	6	11.53
4	Distance Learning	-	-
5	Other (Laboratory)	-	-
Total		52	100

9. Course Objectives
1. Introducing students to the basic concepts in the geography of industry.
2. Introduction to the principles of industry and factors of industrial localization.
3. Introducing students to research methods in industrial geography and sources of data.
4. Enabling students to identify the types of industries (extraction and transformation) and understand their inputs and outputs.

10. Teaching and Learning Strategies
• Lecture
• Discussion
• Cooperative Learning
• Brainstorming
• Project-Based Learning
• Problem-Based Learning
• Mind Mapping and Concept Mapping
• Inquiry and Discovery
• E-Learning
• Field Trips

11. Expected Learning Outcomes for the Course		
Program-Related Learning Outcome Code	Learning Outcome Code	Knowledge
N	N	
1	1	The student defines the basic concepts related to the geography of industry.
1	2	The student is able to understand research methods in industrial geography and sources of data.
1	3	The student distinguishes between the types of industries (extraction and transformation).
1	4	The student identifies the main factors of industrial localization.
1	5	The student discusses the proposed solutions for addressing the negative impacts of industries (pollution in its various forms).
1	6	The student learns about the most important theories related to the

		geography of industry.
Learning Outcome Code Program-Related	**Learning Outcome Code**	**Skills**
M	**M**	
1	**1**	**It collects data used from multiple and varied sources.**
1	**2**	**It provides scientific reports on issues related to the geography of industry using precise research methods.**
1	**3**	**He organizes and participates in exhibitions and conferences related to the geography department as part of the activities related to the subject.**
1	**4**	**Students' participation in field visits to selected industries to learn about them firsthand.**
1	**5**	**Students propose solutions to some problems faced by certain industries.**
Learning Outcome Code Program-Related	**Learning Outcome Code**	**Values**
Q	**Q**	
1	**1**	**It develops a sense of responsibility towards the prescribed curriculum and its role in all branches and fields of geography.**
2	**2**	**He adheres to the scientific basis in the subject of industrial geography.**
2	**3**	**It shows an interest in geography in general, which you cannot find any section or scientific branch without a connection to it.**
1	**4**	**It enhances the spirit of teamwork and collaboration in solving and understanding issues related to the geography of industry.**
1	**5**	**He appreciates the importance and role of industry in the development and progress of nations in various fields.**

12. Course Structure							
Assessment Method	Learning Method	Unit or Topic Title	Required Learning Outcomes			Hours	Week
			Q	M	N		
ongoing assessment log, assignments	Discussion, brainstorming, mind maps, illustrating, oral questions	Concepts in the Geography of Industry	1	-	1	2	1
oral questions, ongoing assessment log	Discussion, illustrating	The industry: its origins and development	1,2	-	1	2	2
reports, ongoing assessment log	Discussion, brainstorming, collaborative learning	The economic importance of industrial activity	2	١،٢	1	2	3
oral questions, ongoing assessment log	Discussion, brainstorming, mind maps, illustrating	Factors of industrial settlement	2,3	2	2	2	4
daily testing	Discussion, brainstorming, mind maps, illustrating	Researcher's Methodologies and Data Sources in Industrial Geography	3,4	1,2	3	2	5
reports, ongoing assessment log, assignments	Discussion, problem solving, collaborative learning, illustrating	Classification of industrial activity	3,4	1,4,6	3	2	6
						2	7
oral questions, ongoing assessment log	Discussion, problem solving, brainstorming, illustrating	Least cost location theory (Von Thunen)	3,4	4,6	3	2	8
						2	9
oral questions, and continuous assessment log	discussion, problem solving, brainstorming, examples	Minimum Transportation Cost Theory	3,4	4,6	3	٢	10
						2	11
oral questions, and continuous assessment log	discussion, problem solving, brainstorming, examples	The theory of wage differentiation and transportation costs	3,4	4,6	3	2	12

oral questions	**General review**					**2**	**13**
Mid-year exams							**14** **15** **16**
Mid-year break							**17** **18**
oral questions, continuous assessment log, assignments	**Discussion, problem solving, brainstorming, illustrating**	**Industrial links**	**3,4**	**1,4,6**	**3**	**2**	**19**
oral questions, continuous assessment log	**: Investigation and discovery: Brainstorming, illustrating**	**The industrial structure**	**3,4**	**2,4,6**	**3**	**2**	**20**
reports, daily test	**Discussion, problem solving, cooperative learning**	**Industrial analysis methods**	**3,4**	**1,2,5**	**4,5**	**2**	**21**
: Written test	**Monthly midterm exam**		**3,4**	**2,5**	**4,5**	**2**	**22**
oral questions, continuous assessment log, assignments	**Discussion, cooperative learning**	**Industrial concentration and dispersion**	**3,4**	**2,5**	**4,5**	**2**	**23** **24**
oral questions, daily test	**Discussion, brainstorming, illustrating**	**Diversity and industrial specialization**	**3,4**	**2,5**	**4,5**	**2**	**25**
oral questions, daily test	**Interactive lectures, discussion**	**Site patterns of industry**	**5**	**1**	**6**	**2**	**26** **27**
oral questions, daily test	**Discussion, interactive lectures**	**Industrial planning**	**5**	**1**	**6**	**2**	**28**
oral questions, continuous assessment log	**Investigation and discovery: Brainstorming, illustrating**	**Requirements and objectives of industrial planning**	**5**	**1**	**6**	**2**	**29**

oral questions, continuous assessment log	Investigation and discovery: Brainstorming, illustrating	Industry and Development	5	1	6	2	30
Oral Exam	General Review					2	31

13. Learning and teaching resources	
• - Prof. Dr. Muhammad Azhar Saeed Al-Samak, Geography of Industry: (A Contemporary Perspective), Al-Yazouri Scientific Publishing and Distribution House, Amman, Jordan, 2012.	Required textbooks (methodology if available)
• Fathi Muhammad Abu Ayana, Theoretical and Applied Foundations of Industrial Geography, Dar Al-Nahda Al-Arabiya, Beirut, 1983. • Abdul Zahra Ali Al-Janabi, Industrial Geography, Amman, Dar Saffa, 2012. • Sobhi Ahmed Al-Dulaimi, Analysis of Industrial Locations from a Geographical Perspective, Amjad Publishing and Distribution House.	Main References (Sources)
• Omran Bandar Murad, Salam Fadel Ali, Geography of Industry between Methodical and Contemporary Study, Tanweer Library, 2017. • - Arab Journal of Science and Research Publishing Foundation. • - The Arab Journal of Geographic Studies. • - Journal of the Center for Geographic Research.	Recommended supporting books and references (scientific journals, reports...)
	Electronic references, websites

14. Course Evaluation			
Percentage of the total evaluation score	Assessment Time	Assessment Activities	N
5%	all weeks	Oral questions and attendance	1
5%	every three weeks	Assignments	2
5%	week 22	Monthly tests	3
25%	week 13-15	Midterm exam	4
60%	at the end of the academic year	Final exam	5
100%	Total		

15. Description approval	
Department Council	**Accrediting Authority**
	Session Number
	Session Date

Course Description Form

1. Course Name:
Micro climatology
2. Course Code:
3. Semester / Year:
annual
4. Description Preparation Date:
11/5/2025
5. Available Attendance Forms:
Presence
6. Number of Credit Hours (Total) / Number of Units (Total)
2 Number of units 4
7. Course administrator's name (mention all, if more than one name)
Name: A.P.Dr.Surah Bader Hussein Email: **Dr.surah.bader@uomosul.edu.iq**
8. Course Objectives

Course Objectives	• **Preparing qualified teachers who have the ability understand and analyze the subject of detailed climate science and teach it to students accordin to an established and modern scientific methodology that serves the specialty.** • **Developing perception, causality, and questionin skills and finding solutions to them to understan the sections and fields of study of detailed climat science.** • **Training students to exploit modern technologies view the latest climate sources and studies of interest to the subject, and to attend electronic**

	lectures, seminars, and conferences that speciali in detailed climate studies…… ….. …..

9. Teaching and Learning Strategies

Strategy	Discussion, questioning during weekly lectures, presenti realistic examples of the detailed climate - Encouraging students to understand, analyze scientifically, a find solutions to problems related to the detailed climate. - Identify the most important detailed climate patterns a compare them. - Access to modern methods of teaching, delivering scienti material to students, and transferring skills and informati related to detailed climate science

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2		Define the concept microclimatology.	discussion	
2	2		Evolution of microclimatology	Discussion	
3	2		Research methods and tools in microclimatology	Discussion	
4	2		Using remote sensi to study micro weather and climat	Discussion	
5	2		The importance studying the detail climate Methods that can adopted in studyi climate	Discussion	
6	2		Selected models micro cave climate	Discussion	

7	2		Forest climate	Discussion	
8	2		Soil surface climate	Discussion	
9	2		Climate of snow, and water surfaces	Discussion	
10	2		Mountain climate	Discussion	
11	2		Valley climate	Discussion	
12	2		Semester exam		
13	2		Theoretical exam (mid-year)		
14	2		Theoretical exam (mid-year)		
15	2		Desert climate	Discussion	
16	2		Criteria for determining desert climate	Discussion	
17	2		Types of deserts	Discussion	
18	2		Climate of the c and the surroundi countryside	Discussion	
19	2		Factors that h shape the cit climate	Discussion	
20	2		The basic characteristics of t city's climate	Discussion	
21	2		A general comparison betwe the climate of the c and the surroundir countryside	Discussion	
22	2		Climate in closed environments	Discussion	

23	2		Room climate and climate	Discussion	
24	2		Discussing stude research	discussion	
25	2		Semester exam		
26	3		final exam		
27	3		final exam		
28	3		final exam		

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any	There is no new material.
Main references (sources)	-The Micro Climate, Ali Hassan Mu Damascus Publishing and Distributi House, 1991
Recommended books and references (scientific journals, reports…)	1 - Local Climate, Ahmed Saeed Hadid, a others, Ibn Al-Atheer Press, University Mosul, 1981. 2-Climatic and vegetation geograp Abdel Aziz Tareeh Sharaf, Dar Al-Ma'r University, 2000. 3- Geography of Climate Regions, Hassan Musa, Damascus University Pre 2016 4- Geography of Climate and Plan Youssef Abdel Majeed Fayed, Dar Al-F Al-Arabi, 1969. 5

	Weather Geography, Ibrahim Ibrah Sharif, Ministry of Higher Education a Scientific Research, Book One, 1991.
Electronic References, Websites	- Solid scientific research and reports fr the Internet, official websites, and clim data

Course Description Form

1. Course Name:
The crimes of the baath regime in Iraq
2. Course Code:
3. Semester/Year:
2025-2024
4. Description Preparation Date:
2025-11-1
5. Available Attendance Forms:
Individual group
6. Number of Credit Hours(Total)/Number of Units(Total)
18 hours
7. Course administrator's name (mention all, if more than one name)
Name: wisam jamal jamal Email: wisam.jamal@uomosul.edu.iq
8. Course Objectives

Course Objectives	• Educating students about the crime committed by the Baath regime in Iraq …… • Guiding students to familiarize themselves With crimes……

	• Educating students about the seriousness of crimes……

9. Teaching and Learning Strategies	
Strategy	Through the prescribed book

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or Subject Name	Learning Method	Evaluation Method
First	2		The concept crimes and thei types	View Sfei minutes a contributior	Written lecture
second	2		Types of trinational crime	=	=
			Political crime		
			Exam		
third	2		Sociai	=	=
fourth	2		Crime		
fifth	2		The crime of suppressing	=	=
sixth			the Shaaban uprising		
			psychologial	=	=

Seventh	2		crimes of the baath	=	=
Eighth	2		regime of disrupting Friday	=	=
Ninth	2		prayers Mass grave crimes	=	=
10^{th}	2		Chemical attack on	=	=
Eleven	2		Haiabja Use of	=	=
twelfth	2		internationally	=	=
Thirteenth	2		Exam	=	=
Fourth	2		Environmental crimes of the baath regime in Iraq	=	=
Fifteenth	2		Incidents of cemeteries and genocide		

			committed dy the Baathist regime in Iraq	=	=

11. Course Evaluation	
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports 1.The theoretical exam inside the hall 2.The daily exam 3.Numders of activities within the class 4.Question-answer and exam 5.Monthly exam.... etc	
12. Learning and Teaching Resources	
Required textbooks(curricular books, if any)	Course book
Main references (sources)	
Recommended books and references (scientific journals, reports)	
Electronic references, websites	

Course Description Form

University Name: University of Mosul
Faculty/Institute: College of Education for Humanities
Scientific Department: Geography
Academic or Professional Program Name: Bachelor of Geography
Final Certificate Name: Bachelor of Geography
Academic System: Annual
Description Preparation Date: 01/09/2024
File Completion Date: 01/10/2024

Signature:
Head of Department Name: Prof. Dr. Suhaib Khudur

Date:

Signature:
Scientific Associate Name: Asst. Prof. Dr. Saleh Sheikh

Date:

The file is checked by:
Department of Quality Assurance and University Performance
Asst. Prof. Dr. Hassan Moayad Hamed Al-Hayali
Director of the Quality Assurance and University Performance Department:
Date:
Signature:

Prof. Dr. Saad Ramadhan Mohammed
Approval of the Dean

Course Description Form

1. Course Name:
Geography of Industry
2. Course Code:
Unknown
3. Semester / Year:
Annual / 2025
4. Description Preparation Date:
2025/5/8
5. Available Attendance Forms:
Both in-person and online
6. Number of Credit Hours (Total) / Number of Units (Total)
2 hours
7. Course administrator's name (mention all, if more than one name)
Name: Dr. Muhareb Khalaf Kanj Al-Maamouri Email: moharebalmamoori@uomosul.edu.iq
8. Course Objectives
Course Objectives
9. Teaching and Learning Strategies

Strategy	• Explanation through lectures and c • Using visual aids such as maps and • Encouraging student participation • Assigning reports and simple resea • Using real-world examples and cas

10. Course Structure

Evaluation method	Teaching method	Name of unit or topic	Required learning outcomes	watches	W
Oral exam	Theoretical lectures	Geography of Industry	Industrial geography: its nature and research methods	3	t
=	=	=	The emergence, importance and classification of industry	3	t
=	=	=	Economic factors of industrial localization	3	t
=	panel discussion	=	Location and position factors	3	F
=	=	=	Government policy factors and personal desires	3	F
=	Theoretical lectures	=	Measuring industrial localization coefficient and industrial links	3	S
=	=	=	Industrial Sites\Industrial Theories	3	S
Written test	=	=	Industrial planning	3	T
Oral exam	=	=	Regional industrial development	3	N
=	panel discussion	=	Regional patterns of geographical distribution of industry	3	T
monthly test	Theoretical lectures	=	Industrial concentration \ Industrial dispersion	3	F
Oral exam	Electronic lectures	=	Diversity and industrial specialization	3	T

Written test	Theoretical lectures	Geography of Industry	Industrial development in Iraq	3	T
Oral exam	=	=	Location patterns of industry - industrial point - industrial zones	3	F
Oral exam	theoretical lecture	=	Industrial regions of the world	3	F
Oral exam	panel discussion	=	Spatial planning and development for industry A- The concept of planning, its importance and foundations B - Industrial planning patterns: - 1- Industrial planning in the free system 2- Industrial planning in the central system	3	S
=	theoretical lecture	=	3- Industrial planning in developing countries C- Regional development and industrial development policies in Iraq	3	S
=	=	=	Theories of industrial economic locations: - A- Theories of the first and second stages	3	F
=	=	=	أ- Third and fourth stage theories	3	N
=	theoretical lecture	=	The concept of energy, its types, sources, and	3	T

			methods of generation		
=	theoretical lecture	=	Extractive industries: - A- Mining characteristics B- Metal detection methods ب- basic metal industries	3	t
=	panel discussion	=	Metal industries: 1- Iron and steel 2- Copper 3- Aluminum	3	t s
=	theoretical lecture	=	Mechanical industries - their importance and branches Transportation industry: cars	3	t t
=	theoretical lecture	=	Manufacturing trains, aircraft and ships	3	t f
=	panel discussion	=	Chemical and petrochemical industries - their importance and branches	3	t
=	theoretical lecture	=	Electronic industries and electrical appliances	3	t s
=	panel discussion	=	Creative industries: a- Printing and publishing industry B- Artistic industries, including: advertising industry and its types. - Musical instrument manufacturing - Film and theatre industry	3	t s
Written test	panel discussion	=	Industrial problems: A- Industrial production problems (capital -	3	t e

			raw materials		
Oral exam	=	=	Labor - - Transportation - Problems of industrial machinery and equipment technology)	3	t n
=	theoretical lecture	=	Industrial pollution problems of environmental aspects: air, water, soil and noise pollution	3	T

Hour

	3	**11. Course stru ture**

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily prepar ation

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)
Main references (sources)
Recommended books and references (scientific journals, reports…)
Electronic References, Websites

Eva uation met od	Teaching method	Name of unit or topic	Required learning outcomes	watches	Week
Ora exam	**Theoretical lectures**	**Geography of Industry**	**Industrial geography: its nature and research methods**	**3**	**the first**
=	=	=	**The emergence, importance and classification of industry**	**3**	**the second**
=	=	=	**Economic factors of industrial localization**	**3**	**the third**
=	**panel discussion**	=	**Location and position factors**	**3**	**Fourth**

=	=	=	Government policy factors and personal desires	3	Fifth
=	Theoretical lectures	=	Measuring industrial localization coefficient and industrial links	3	Sixth
=	=	=	Industrial Sites\Industrial Theories	3	Seventh
Written test	=	=	Industrial planning	3	The eighth
Oral exam	=	=	Regional industrial development	3	Ninth
=	panel discussion	=	Regional patterns of geographical distribution of industry	3	Tenth
monthly test	Theoretical lectures	=	Industrial concentration \ Industrial dispersion	3	Eleventh
Oral exam	Electronic lectures	=	Diversity and industrial specialization	3	Twelfth
Written test	Theoretical lectures	Geography of Industry	Industrial development in Iraq	3	Thirteenth
Oral exam	=	=	Location patterns of industry - industrial point - industrial zones	3	Fourteenth
Oral exam	theoretical lecture	=	Industrial regions of the world	3	Fifteenth
Oral exam	panel discussion	=	Spatial planning and development for industry A- The concept of planning, its importance and foundations B - Industrial planning patterns: - • Industrial planning in the free system • Industrial planning in the central	3	Sixteenth

				system		
=		theoretical lecture	=	• Industrial planning in developing countries C- Regional development and industrial development policies in Iraq	3	Seventeenth
=		=	=	Theories of industrial economic locations: - A- Theories of the first and second stages	3	Eighteenth
=		=	=	- Third and fourth stage theories	3	Nineteenth
=		theoretical lecture	=	The concept of energy, its types, sources, and methods of generation	3	Twenty
=		theoretical lecture	=	Extractive industries: - A- Mining characteristics B- Metal detection methods - basic metal industries	3	twenty-one
=		panel discussion	=	Metal industries: 1- Iron and steel 2- Copper 3- Aluminum	3	twenty-second
=		theoretical lecture	=	Mechanical industries - their importance and branches Transportation industry: cars	3	twenty-third
=		theoretical lecture	=	Manufacturing trains, aircraft and ships	3	twenty-fourth
=		panel discussion	=	Chemical and petrochemical industries - their importance and	3	twenty-fifth

			branches		
=	**theoretical lecture**	**=**	**Electronic industries and electrical appliances**	**3**	**twenty-sixth**
=	**panel discussion**	**=**	**Creative industries: a- Printing and publishing industry B- Artistic industries, including: advertising industry and its types. - Musical instrument manufacturing - Film and theatre industry**	**3**	**twenty-seventh**
Written test	**panel discussion**	**=**	**Industrial problems: A- Industrial production problems (capital - raw materials**	**3**	**twenty-eighth**
Oral exam	**=**	**=**	• **Labor - Transportation - Problems of industrial machinery and equipment technology)**	**3**	**twenty-ninth**
=	**theoretical lecture**	**=**	**Industrial pollution problems of environmental aspects: air, water, soil and noise pollution**	**3**	**Thirty**

11 Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

according to the tasks assigned to the student, such as daily preparation, daily oral exams, monthly written exams, reports, etc. This section specifies how grades will be allocated based on different types of assessments and tasks during the course.

12 Learning and Teaching Resources

Required textbooks (curricular books, if any)	**All the prescribed books for the subject, especially the modern ones.**
Main references (sources)	**1- Industrial Geography Book/ Prof. Dr. Abdul Zahra Ali Al-Janabi 2013.** **2- The Geography of Industry: Contemporary Perspectives/ Prof. Dr. Muhammad Azhar Al-Samak 2008.**
Recommended books and references (scientific journals, reports…)	**I recommend adopting modern sources, including:** **The Geography of Industry: Between Methodological and Contemporary Study/ Dr. Dumran Bandar Murad - Assistant Professor Salam Fadhel Ali 2016 - In addition to all academic studies and scientific research published in academic scientific journals that are related to the vocabulary of the subject.**
Electronic References, Websites	**All studies published on the Internet that are related to the geographic vocabulary of industry.**

Dr. Muharab Khalaf King Ismail