Course description form

1. **Course Name**:
Applied climatology
2. **Course Code**:
3. **Semester/Year**:
The second phase / 2025–2026
4. **Date this description was prepared**:
1/ 9/ 2023
5. **Available attendance forms**:
in person
6. **Number of study hours (total) / number of units (total)**:
120/hour, 4/units
7. **Name of the course administrator (if more than one name is mentioned with the personal email)**
1– A.Dr.. Nasser Wali Freih Al–Rikabi **Email:nasirwali@uowasit.edu.iq**
8. **Course objectives**

It aims to know the impact of climatic elements and the phenomena accompanying them on humans and the environmental elements contained in the place in which they are located. Since science has become a small village, the impact of climatic elements in any place reflects their effects on any region in the world. This means that the applied aspects of climate It requires extensive knowledge and knowledge about the world through the exchange of information between departments and institutions concerned with studying past and present climatic characteristics to determine their impact, whether in the present or expected in the future. In addition to using the latest methods to measure the impact of climatic elements on human health, comfort, and activity. Application methods for calculating some elements such as drought and evaporation, as well as according to the water budget	**Objectives of the study subject**

9. Teaching and learning strategies	
· **Interactive lectures and group discussions.** · **Reports and drawings for climate lectures** · **Using modern climate references and sources to enrich the lecture.** · **Using the method of detailed explanation of the lecture topics.** · **Use of maps.** · **Using the lecture presentation method using a data show device** · **Using the practical and applied aspect in measuring some climate elements and phenomena, as well as measuring the impact of climate on human comfort, health, and activity.** · **Focus on studying climate change, its causes, effects, and methods of adaptation**	

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes		the week
Class performance and exams	Lecture and brainstorming	The development of climatology and applied climate, the most important axes of its study, and the latest studies in this aspect	Informing students about the development of climate science, its most important branches, and the development of applied climate studies	4	October the first1
Class performance and exams	Lecture and discussion	Climate and natural environment Climate and terrain From the effect of climatic elements on the surface and the resulting shapes	Focusing on the impact of climate on nature, represented by the effect of heat, precipitation, wind, and snow on the shapes of the Earth's surface.	4	October the first2
Class performance and exams	Lecture and brainstorming	The effect of climatic elements on soil and water The effect of climate on soil formation The effect of climate on the variation in soil distribution The impact of climate on the forms and	Informing students about how climatic elements affect soil diversity Surface and groundwater resources	4	October the first3

		characteristics of water resources			
Class performance and exams	Lecture and brainstorming	The effect of climate on natural plants Vegetation varies according to climatic conditions Climatic regions and their compatibility with vegetation regions	Informing students about the importance of studying the impact of climate on plant life	4	October the first4
Class performance, exams and field visits	Lecture and discussion	Measuring climate elements directly through climate stations Measuring devices Development of surface and atmospheric measuring instruments	Focusing on climate stations, measuring devices, and developments in monitoring and controlling climate elements	4	October the second1
Class performance and exams Assigning students to calculate evaporatio	Standard method Practical application	Methods of measuring some climatic elements Methods for measuring evaporation The importance of its study, its types, causes, and the most important rates of	Explaining the importance of studying evaporation, its effects, and its types	4	October the second2

n for stations in Iraq		its measurement			
Class performance and exams	Standard method Practical application	Drought: its types, causes, forms, effects, and methods of measuring it	Informing students of the importance of studying the phenomenon of drought and its types	4	October the second3
Class performance and exams	Standard method Practical application	Radiation measurement The most important equations for measuring solar radiation	Focus on the importance of solar radiation, its impact, and daily, seasonal, and annual variation	4	October the second4
Paper exam	theoretical	First month exam, first semester		4	Canon the first1
Class performance and exams	Standard method practical application	Climate water budget Budget elements Calculation methods	Introduction to the budget and the importance of studying it	4	Canon the first2
Class performan	Lecture and	Climatic classifications	Identify the most important climate	4	Canon

ce and exams	discussion		classifications		the first3
Class performance and exams	Lecture and discussion	Köppen classification	Learn about Copen codes Methods of classification according to climatic regions	4	Canon the first4
Class performance and exams	Lecture and brainstorming	Geographic distribution of Köppen climatic regions	Identify the most important climatic regions and their geographical distribution	4	Canon the second1
Class performance and exams	Lecture and application	Modern classifications Thonthwaite classification	Identify the most important Thonthwaite climate symbols	4	Canon the second2
Class performance and exams	Lecture and application	Holder's classification	Learn how to use classification	4	Canon the second3
Class performance and exams	Lecture and application	Kosen classification	Learn about the use of classification	4	Canon the second4

Paper exam	**theoretical**	**Exam of the second month of the first semester**	**Essay, objective and applied questions**	**4**	**February 1**
		Spring break			**February 2**
Class performance and exams	**Lecture and application**	Human classifications Climate and human comfort	Identify the impact of climate on human health, comfort, and activity	**4**	**March1**
Class performance and exams	**Lecture and application**	Climate and human activity	Identify the impact of climate on agriculture, industry, tourism, transportation, trade, and military operations	**4**	**March2**
Class performance and exams	**Lecture and brainstorming**	Climate, agriculture and industry The effect of climatic elements on plant life, as well as the effect of elements on industries	Identify the impact of climate, crop cultivation, and the establishment of industry	**4**	**March3**
Class performance and exams	**Lecture and brainstorming**	Climate, trade and transport. The impact of climate on transport routes, vehicles, sea and air transport	Explaining the role of elements in the movement of trade and transportation	**4**	**March4**

Class performance and exams	**Lecture and brainstorming**	Climate, tourism and military operations The most important tourism climatic elements and how climatic elements affect tourism	Identify and explain the impact of climate on the tourism industry and the factors behind its development	**4**	**April1**
Class performance and exams	**Lecture and application**	Climate and health The effect of climatic elements on the environment of diseases Incidence varies according to the seasons	Explaining the relationship of disease incidence and its relationship to climatic elements	**4**	**April2**
Paper exam	**theoretical**	**Exam of the first month of the second semester**		**4**	**April3**
Class performance and exams	**Lecture and application**	Climate and architecture Building design and climate	Explaining the impact of climate on the design of buildings in different environments	**4**	**April4**
Class performance and exams	**Lecture and brainstorming**	Construction direction Building materials Window capacity	Explaining the effect of climatic elements through the direction of construction, the size of windows, and building materials	**4**	**Mays1**

Class performance and exams	**Lecture and application**	Climate, alternative energy and energy consumption	Learn about alternative energy sources	**4**	**Mays2**
Class performance and exams	**Lecture and application**	Solar radiation energy, wind energy, and tidal energy	Learn about solar radiation and wind energy	**4**	**Mays3**
Class performance and exams	**Lecture and application**	Calculate the need for heating and cooling	Learn about the variation in energy consumption and methods for calculating it	**4**	**Mays4**
Paper exam	**theoretical**	**Exam of the second month of the second semester**			**May 1**
		End of year exams			**May 2**

11. Course evaluation:

The score is distributed out of 100 as follows:

1– The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.

2– The final written exam score is (50) points.

12. Learning and teaching resources:	
	Required textbooks (methodology, if any)
1: Dr. Qusay Abdel Majeed Al–Samarrai and Adel Saeed Al–Rawi, Applied Climatology. 2:D. Ali Saheb Al–Moussawi and Abdul Hassan Madfoun, Applied Climatology, 2011. 3:D. Fadel Al–Hassani and Mahdi Al–Sahhaf, Basics of Applied Climatology. 4: Dr. Qusay Abdel Majeed Al–Samarrai, Climate and Climatic Regions. Ali Hassan Musa, applied climatology Ali Ghanem, applied climatology	Main references (if any)
Bioclimate d. Ali Hassan Musa Climatic regions d. Ali Hussein Al Shalash Ali Hassan Musa's tourist climate	Recommended supporting books and references (scientific journals, reports, ….).
Journal of the Geographical Society Analytical climate Working climate	Electronic references, website

Course Description Form

Course Name: .1	
Geomorphology	
Course Code: .2	
Semester / Year: .3	
annual	
Description Preparation Date: .4	
2025 / 10 / 1	
Available Attendance Forms: .5	
immanence	
Number of Credit Hours (Total) / Number of Units (Total) .6	
60 hours annually. 2 hours per week	
Course administrator's name (mention all, if more than one name) .7	
Name: Prof. Dr. Hussein Azab Khalif Al-Moussawi **Email: hathab@uowasit.edu.iq**	
Course Objectives .8	
1- Paying attention to studies that include the forms of the Earth's surface, their applications and principles. 2- Distinguishing between the worker and the process. 3- Developing students' ability to study landforms in an applied manner. 4- Follow up and keep up with new references related to topics about landforms. 5- Harnessing technology to develop education and presenting lectures via computers.	
Teaching and Learning Strategies .9	
Strategy	Education strategy collaborative concept planning. ➢ Teaching strategy brainstorming. ➢ Education strategy notes series ➢

Course Structure .10					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	2	Introducing students to the concept of applied geomorphology	Chapter One:- *Foundations and concepts of applied geomorphology. *The concept of applied geomorphology.	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
2	2	Introducing students to the stages of development of geomorphology and its relationship to other sciences	* Stages of geomorphology development. *The relationship of applied geomorphology to other sciences.	PowerPoint Lecture	test (oral-)
3	2	Introducing students to the modern foundations of applied geomorphology	*The importance of geomorphological information in different areas of life. *Modern foundations of applied geomorphology	PowerPoint Lecture	General questions and discussion
4	2	Teaching students to use measuring devices and geomorphological field work	*Principles of field work in applied geomorphological study. *Field and laboratory geomorphological measuring devices.	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
5	2	Definition of studentsTypes of soils, their different characteristics, and methods of classification	Chapter II:- *Soil - its characteristics - classification	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
6	2	Definition of studentsThe stages of soil development	*Soil - its development - factors affecting it	theoretical, theoretic,	A written test

		and the factors affecting it		abstract, notional, perspective, paper, academic	
7	2	Introducing students to the characteristicsSlopes on the Earth's surface and methods of measuring them	Chapter III:- * Slopes of the Earth's surface - measured	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
8	2	Definition of studentsTypes and types of slopes and their most important international classifications	Classification of slopes - the possibilities of use available in them.	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
9	2	Introducing students to the typesForms of movement of materials, assessment of their risks, and methods of processing them on the surface of the Earth	* Classification of the movement of materials on the Earth’s surface - assessment of their risks - methods of treating them.	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
10	2	Introducing students to the most importantSurface water and methods and techniques for measuring its flow	the fourth chapter:- *Running water - methods for measuring its work	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
11	2	Teaching studentsMorphometric characteristics, their types, and methods of measuring them	*Morphometric characteristics of surface water	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion

12	2	Definition of studentsTypes of wind and the most important methods of measuring its speed	Chapter V:- * Wind - methods of measuring its work.	PowerPoint Lecture	test (oral-)
13	2	Definition of studentsThe effects of wind on landforms and the way they are formed	* Measure dimensionsDrShapes resulting from the action of the wind.	PowerPoint Lecture	test (oral-)
14	2	Definition of studentsThe most important problems of wind on roads and how to reduce them	*Monitoring the effects of wind and ways to reduce its problems	PowerPoint Lecture	test (oral-)
15	2	Introducing students to the conceptGroundwater and methods for identifying recharge basins	Chapter six:- * Groundwater - methods for determining its recharge basins	PowerPoint Lecture	A written test
16	2	Definition of studentsMethods of determining the direction of its movement and the resulting effects	* Foundations for determining directions of movement - risks resulting from the action of groundwater	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
17	2	Teaching studentsOn the concept of marine coasts, their types and classifications	Chapter VII:- *Coasts of seas, oceans and lakes - their classification - monitoring and measuring their changes	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
18	2	Teaching studentsOn the most important geomorphological factors affecting it	*Monitoring and measuring the geomorphological processes affecting it	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)

19	2	educationStudentsMethods of measuring coastal landforms	*Determine and measure the dimensions of the landforms appearing therein	PowerPoint Lecture	test (oral-)
20	2	educationStudentsMethods, classification of lands, and production of maps	Chapter Eight:- *Evaluation and classification of lands and their completionCGeomorphological map	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
21	2	Introducing students to the most importantPrinciples and standards for land classification	*The principles followed - requirements - classification stages	theoretical, theoretic, abstract, notional, perspective, paper,	test (oral-)
22	2	Introducing students to the conceptNatural resources and how to invest them	Chapter Nine:- * Geomorphological applications:- * Natural resources (oil and natural gas reservoirs - coal fields).	theoretical, theoretic, abstract, notional, perspective, paper, academic	A written test
23	2	Definition of studentsThe most important deposits used in construction operations and methods of exploiting them	* Deposits of natural ores and building materials and their detection - and ways to exploit them	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
24	2	Teaching studentsOn the most important narrative projects and methods of classifying them	* Water projects (irrigation projects - dams and reservoirs)	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
25	2	Definition of studentsThe most important sites and	* Determine its optimal placement - its problems	theoretical, theoretic,	General Discussion

		methods chosen to complete these projects	in different environments and its maintenance	abstract, notional, perspective, paper, academic	and Questions
26	2	Definition of studentsThe most important engineering projects and their geomorphological effects	* Engineering projects (roads, railways, airports, vertical construction, ports).	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
27	2	Definition of studentsThe most important sites and methods of selecting them for engineering projects	*The suitability of the land to different environments - ways to address its environmental problems	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
28	2	Definition of studentsThe concept of water harvesting and harvesting methods	*Water resources - harvesting them	theoretical, theoretic, abstract, notional, perspective, paper, academic	A written test
29	2	Definition of studentsMethods of exploiting and evaluating water resources	*Redirecting it - evaluating its uses	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
30	2	Definition of studentsSurface formation and its effects on military operations	Military operations - adapting the terrain’s topography to military vehicles	PowerPoint Lecture	test (oral-)
31	2	Definition of studentsThe most important areas and methods of selecting them	* Tourism - suitability of land features -	PowerPoint Lecture	test (oral-)

		for tourism development and knowledge of the most important geomorphological risks	geomorphological risks		

Course Evaluation .11	
Distribution is as follows: 25 marks for monthly and daily exams for the first semester. 25 marks for monthly and daily exams for the second semester. 50 marks for final exams	
Learning and Teaching Resources .12	
Required textbooks (curricular books, if any)	A.M.D. Taghlib Girgis Daoud, Applied Geomorphology, University House for Printing, Publishing and Translation/Basra Branch, 2002.
Main references (sources)	Dr.. Ahmed Hassan Sayed Abu Al-Enein, Origins of Geomorphology, Beirut, 1989.
Recommended books and references (scientific journals, reports...)	1- Dr. Mahdi Al-Sahhaf, Dr. Adnan Al-Naqash, Geomorphology, Baghdad University Press, Baghdad, 1989. 2- Dr. Noura Abdel Tawab Al-Sayed, Principles of Geomorphology, 1st edition, Anglo-Egyptian Library, Cairo, 2008. 3- Dr. Khalaf Hassan Ali Al-Dulaimi, Applied Earthform Science/Applied Geomorphology, 1st edition, Dar Safa for Printing, Publishing and Distribution, 2012. 4- Dr. Hassan Ramadan Salama, Fundamentals of Geomorphology, 4th edition, Dar Al Masirah 2013. 5- Dr. Sarhan Naeem Al-Khafaji, Geomorphology, Earth's Surface Forms, 1st edition, Al-Dar Al-Mudhaji for Publishing and Distribution, Amman, 2018.
Electronic References, Websites	(iasj) Iraqi Academic Journals Website. ➢ Google Scholar ➢ Research Gate ➢ Various AI Sites ➢

Course description form

1. Course Name:	
Geography of Eurasia	
2. Course Code:	
3. Semester/Year:	
The second phase / 2025-2026	
4. Date this description was prepared:	
2025 /10 /1	
5. Available attendance forms:	
in person	
6. Number of study hours (total) / number of units (total):	
120/hour, 4/units	
7. Name of the course administrator (if more than one name is mentioned with the personal email)	
Dr.Hind Hassan Mutshar	**Email: hmutsher@uowasit.edu.iq**
8. Course objectives	

1- Introducing the student to the various geographical regions in the continents of Asia and Europe 2- Introducing students to the natural characteristics of the continents of Asia and Europe 3- Enabling the student to identify the characteristics of the populations and peoples between the two continents and their origins, i.e. the ethnographic, cultural and political structure. 4- Enabling the student to access books and literature related to countries to learn about their activities 5- Clarifying the role of geography in research and development for countries in Asia and Europe 6- Graduating academic students specialized in geographical knowledge and qualified for academic work in accordance with the	**Objectives of the study subject**

geographical vision.

7- Providing students with the opportunity to carry out extracurricular activities that enhance their knowledge of the peculiarities of the two continents

9. Teaching and learning strategies

- **Interactive lectures and group discussions.**
- **Reports and drawings for climate lectures**
- **Using modern references and sources to enrich the lecture.**
- **Use the method of detailed explanation of the lecture topics.**
- **Using maps.**
- **Use the lecture presentation method using a data show device**

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Class performance and exams	Lecture and brainstorming	Asia Site characteristics	1- Developing the student's understanding of the concept of the continent in geographical studies 2- Identify the characteristics of the astronomical and geographical location of the continent of Asia	4	October 1
Class performance and exams	Lecture and discussion	Geological structure Landforms	The student understands the nature of the geological structure through which the continent of Asia was formed Identify the shapes of	4	October 2

			the Earth's surface in the continent of Asia		
Class performance and exams	Lecture and brainstorming	the climate	An explanation of the concept of climate, weather, and factors affecting climate And get to know the most important climatic regions in the continent of Asia	4	October 3
Class performance and exams	Lecture and brainstorming	the soil	Learn about the soil of the Asian continent and the reasons for its formation	4	October 4
Class performance, exams and field visits	Lecture and discussion	Natural plant	Illustration of the concept of natural plant And get to know the most important plant regions in the continent of Asia	4	November 1
Class performance and exams Assigning students to calculate	Lecture and discussion	Mineral resources	Clarification of mineral resources in the continent of Asia And identify the mother of minerals in i	4	November 2
Class performance and exams	Lecture and discussion			4	November 3

Paper exam	**theoretical**	**First month exam, first semester**		**4**	**November 4**
Class performance and exams	**Lecture and discussion**	**Population of the continent of Asia**	**Getting to know the people of Asia** **And the factors affecting population distribution** **And study the most important population regions there**	**4**	**December1**
Class performance and exams	**Lecture and brainstorming**	**Economic development**	**Identify economic activity in the continent of Asia and its types** **And evolving reasons**	**4**	**December2**
Class performance and exams	**Lecture and discussion**	**Transport and trade**	**Explain the concept of transport and trade** **Learn about the most important means of transportation and learn about trade and its types**	**4**	**December3**
Class performance and exams	**Lecture and discussion**	**Study of political unit** **India**	**Identify the natural and human characteristics of the Republic of India**	**4**	**December4**
Class performance and exams	**Lecture and discussion**	**Japan**	**Learn about the natural and human characteristics of Japan**	**4**	**January1**
Paper exam	**theoretical**	**First month exam,sconad semester**		**4**	**January2**
		Spring break			**January3**

		Spring break			**January4**
Class performance and exams	**Lecture and application**	Europe Continent Site characteristics	Developing the student's understanding of the concept of the continent in geographical studies And learn about the characteristics of the astronomical and geographical location of the European continent	**4**	**February 1**
Class performance and exams	**Lecture and discussion**	Landforms	Identify the shapes of the Earth's surface on the European continent	**4**	**February2**
Class performance and exams	**Lecture and discussion**	the climate	An explanation of the concept of climate, weather, and factors affecting climate And get to know the most important climatic regions on the European continent	**4**	**February 3**
Class performance and exams	**Lecture and discussion**	Mineral resources	An explanation of mineral resources on the European continent And identify the mother of minerals in it		**February 4**
Paper exam	**theoretical**	**Exam of the first month of the second semester**		**4**	**March1**
Class performance and exams	**Lecture and discussion**	Residents of the continent of Europe	Getting to know the inhabitants of the European continent And the factors affecting population distribution And study the most	**4**	**March2**

			important population regions there		
Class performance and exams	**Lecture and discussion**	Economic development	Identify economic activity on the European continent and its types And evolving reasons Explain the concept of transport and trade Learn about the most important means of transportation and learn about trade and its types	**4**	**March3**
Class performance and exams	**Lecture and discussion**	**Transport and trade**	**Explain the concept of transport and trade** **Learn about the most important means of transportation and learn about trade and its types**	**4**	**March4**
Class performance and exams	**Lecture and discussion**	Study of Italy's political unity	Identify the natural and human characteristics of the Republic of Italy	**4**	**April1**
Class performance and exams	**Lecture and discussion**	Study of Italy's political unity	Identify the natural and human characteristics of the Republic of Italy	**4**	**April2**
Class performance and exams	**Lecture and discussion**	United kingdom	Identify the natural and human characteristics of the United Kingdom	**4**	**April3**

Paper exam		**Exam of the second month of the second semester**		**4**	**April4**
Class performance and exams	**Lecture and discussion**	United kingdom	Identify the natural and human characteristics of the United Kingdom	**4**	**May1**
Class performance and exams	**Lecture and discussion**	United kingdom	Identify the natural and human characteristics of the United Kingdom	**4**	**May2**
		Final exams		**4**	**May3**
		Final exams		**4**	**May4**

11. Course evaluation:
The score is distributed out of 100 as follows: **1- The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.** **2- The final written exam score is (50) points.**
12. Learning and teaching resources:

	Ahmed Hassoun Muhammad, Geography of Eurasia

1- Moselhi, Dezfahi Muhammad, The Geography of Eurasia: A Geographical View. **2- Dr. Fathi Muhammad, Regional Geography** **3- Hassanein Gouda, Regional Geography of Europe**	**Main references (if any)**
1- Dr. Hassan Sayed Ahmed Abu Al-Enein, Regional Geography of the World **2- Dr. Muhammad Muhammad Satti, Regional Geography** **3- Dr. Fathi Muhammad Moselhi, Geography of Eurasia,** **4- Dr. Jawda Hussein Jawda, Regional Geography of Europe** **5- Dr. Hassan Abdel Aziz Ahmed, Geography of Europe**	**Recommended supporting books and references (scientific journals, reports, ...).**
Artificial Intelligence websites **Research Gate**	**Electronic references, website**

Course description form

:Course name .1	
:Course code .2	
:Semester/Year .3	
second phase ,2026-2025 .4	
:Date the description was prepared .5	
In-person lectures	
Number of study hours (total)/number of units (total1) .1	
hours, 11/unit 2	
Name of the teacher (mention them all if there is more than one person). .2	
Name: Dr. Russell Tariq Hassan Email: russelt@uowasit.edu.iq	
Course objectives .3	
Gain a comprehensive understanding of counseling and mental .5 .health Developing students' ability to recognize and analyze subject .6 concepts Enhancing students' scientific thinking skills by analyzing problems .7 that are presented and discussed in the classroom .Building trust and cooperation among students in the classroom .8	**Course objectives**
Teaching and learning strategies .4	
:Directed towards the teacher Clear explanations: The school will provide clear and concise explanations of psychological • .counseling concepts to enhance understanding • Structured Presentations: Each session will follow a well-organized format, providing .explanations and examples, then moving into student-oriented activities Guided practice: The teacher will lead the class through initial practice exercises, ensuring •	Strategy 1

.that all students understand key concepts before moving on	
:Learner oriented • Interactive activities: The course will include a variety of interactive activities to • .promote active learning. This may include group discussions, group work, quizzes Problem-solving exercises: Students will be provided with problem-solving exercises • that challenge them to analyze and apply the learned psychological counseling concepts in .real-world scenarios Cooperative Learning: Group work and peer review activities will encourage • .students to learn from each other, enhancing collaboration and communication skills Technology integration: Technology can be exploited through interactive • whiteboard exercises for collaborative learning, and multimedia resources to enhance .participation	Strategy 2
:Independent education • Schoolwork: Students will be assigned live exercises and activities used to enhance • their understanding Encouraging self-study: The school will provide resources and strategies for • .independent learning, encouraging students to use self-reflection Optional activities: Students will have opportunities to participate in optional • activities such as presentations, discussions, or creative writing assignments, which will .enable them to display their skills in a more creative way	Strategy 3

Course structure .5

Evaluation method	Teaching method	Topic or chapter	Required learning outcomes	hours	the week
a test	In-person lecture	Unit 1	high school	2	1
a test	In-person lecture	Unit 2	Objectives of secondary education	2	2
a test	In-person lecture	Unit 3	Types of secondary education schools	2	3
a test	In-person lecture	Unit 4	Objectives of secondary education	2	4
a test	In-person lecture	Unit 5	Management concept	2	5
a test	In-person lecture	Unit 6	Management schools	2	6
a test	In-person lecture	Unit 7	First month exam	2	7
a test	In-person lecture	Unit 8	educational administration	2	8

a test	In-person lecture	Unit 9	Centralization and decentralization in educational administration	2	9
a test	In-person lecture	Unit 10	Educational administration	2	10
a test	In-person lecture	Unit 11	Fields of educational administration	2	11
a test	In-person lecture	Unit 12	The school administration	2	12
a test	In-person lecture	Unit 13	Objectives of school administration	2	13
a test	In-person lecture	Unit 14	Components of school administration	2	14
a test	In-person lecture	Unit 15	Objectives of school administration	2	15
a test	In-person lecture	Unit 16	Components of school administration	2	16
a test	In-person lecture	Unit 17	Elements of school administration	2	17
a test	In-person lecture	Unit 18	Elements of school administration	2	18
a test	In-person lecture	Unit 19	School management styles	2	19
a test	In-person lecture	Unit 20	Second semester exam (first month)	2	20
a test	In-person lecture	Unit 21	Characteristics of school administration	2	21
a test	In-person lecture	Unit 22	Tasks (duties) of the school principal	2	22
a test	In-person lecture	Unit 23	Administrative leadership	2	23
a test	In-person lecture	Unit 24	The importance of educational leadership	2	24
a test	In-person lecture	Unit 25	Educational supervision and its importance	2	25
a test	In-person lecture	Unit 26	(Second semester exam (second month	2	26
a test	In-person lecture	Unit 27	Objectives of educational supervision	2	27
a test	In-person lecture	Unit 28	Methods of educational supervision	2	28
a test	In-person lecture	Unit 29.	Foundations of educational supervision	2	29
a test	In-person lecture	Unit 30	Types of educational supervision and its advantages	2	30

Course evaluation .6

- Periodic Quizzes: Frequent, low-stakes quizzes will assess the student's understanding of the material .throughout the course and provide opportunities for feedback and level of development
- Exams: Monthly and final exams will comprehensively test students' knowledge and application of the

.concepts studied

- Written Assignments: Written assignments will assess students' ability to use psychological concepts accurately and effectively
- Class Participation: Active participation in class discussions, exercises, and group work will be encouraged .and will contribute to the overall assessment

:Learning and teaching resources .7

Basics in secondary education and educational administration 2025.2025	Required textbook references (textbooks, if (available
Educational administration and supervision	Main references
Secondary education and educational administration	Recommended books and references (scientific journals, reports…)
nothing	Electronic references, websites

Measurement and evaluation				
2. Course code				
3. Semester/year				
2026/2025				
4. The date this description was prepared				
2025/10/1				
5. Available forms of attendance				
My presence				
6. Number of study hours (total) number of units (total)				
40 hours 2 hours				
7. Name of the course administrator (if more than one name is mentioned)				
Name: Dr. Russel Tariq Hassan Email: russelt@uowasit.edu.iq				
8. Course objectives				
Objectives of the study subject •	Introducing students to the importance of measurement and evaluation and their role in improving learning. Introducing students to the basic concepts in measurement and evaluation. Introducing students to achievement tests, both essay and objective. Introducing students to testing methods.			
9.Teaching and learning strategies				
• The method of discussion in its various forms in order to exchange ideas to reach facts. • Brainstorming strategy: Lecture method				Strategy and method
10.Course structure				
Evaluation	Learning method	Name of the unit or subject	Hours	Week

method				
Oral exam	Lecture and discussion	The development of measurement and evaluation	2	first
Oral exam	Lecture and interrogation	Test concept	2	second
Oral exam	Lecture and brainstorming	The concept of evaluation and evaluation	2	third
Oral exam	Lecture and discussion	The concept of measurement and evaluation	2	fourth
Oral exam	Lecture and interrogation		2	Fifth
Oral exam	Lecture and brainstorming	Psychometric properties	2	sixth
Oral exam	Lecture and discussion	Types of calendar	2	Seventh
Oral exam	Lecture and interrogation	The role of assessment in improving the learning process	2	eighth
Oral exam	Lecture and brainstorming	Teaching objectives	2	Ninth
Oral exam	Lecture and discussion	Measurement and evaluation and their relationship to goal levels	2	tenth
Oral exam	Lecture and interrogation	Achievement test	2	eleventh
Oral exam	Lecture and brainstorming	Steps for constructing the achievement test	2	twelfth
Second Semeste				

Oral exam	Lecture and discussion	Preparing a table of specifications	2	first
Oral exam	Lecture and interrogation	Statistical analysis of paragraphs	2	second
Oral exam	Lecture and brainstorming	Essay achievement tests	2	third
Oral exam	Lecture and discussion	Classification of tests according to method of interpretation	2	fourth
Oral exam	Lecture and interrogation	Good test specifications	2	Fifth
Oral exam	Lecture and brainstorming	Essay achievement tests	2	sixth
Oral exam	Lecture and discussion	Honesty and its types	2	Seventh
Oral exam	Lecture and interrogation	Reliability and its calculation methods	2	eighth
Oral exam	Lecture and brainstorming	Evaluation other than achievement tests	2	Ninth
Oral exam	Lecture and discussion	Cumulative record	2	tenth
Oral exam	Lecture and interrogation	Note	2	eleventh
Oral exam	Lecture and brainstorming	the interview	2	twelfth

11.Course evaluation
Distribution of grades out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, and reports... 40 grades for the subject, exams (two tests), 5 grades for daily attendance, 5 grades for daily participation.

12.Learning and teaching resources	
Required textbooks (methodology, if any)	Measurement and evaluation for university students
Main references (sources)	Measurement and evaluation in the educational process
Recommended supporting books and references (scientific journals, reports....)	

Course description form

1.	**Course Name:**
Development Geography and Planning	
2.	**Course Code:**
3.	**Semester/Year:**
The second phase / 2025-2026	
4.	**Date this description was prepared:**
2025 /10 /1	
5.	**Available attendance forms:**
in person	
6.	**Number of study hours (total) / number of units (total):**
120/hour, 4/units	
7.	**Name of the course administrator (if more than one name is mentioned with the personal email)**
1- Prof.Dr. Aya Hani Moussa	**Email:** amusa@uowasit.edu.iq
8.	**Course objectives**

It aims to provide students with basic information about the geography of development and planning. In addition to providing students with the objectives, characteristics, and importance of development geography, while clarifying the basic terms of the concept of development and planning. The course also aims to introduce students to important terms such as sustainable .development and regional planning In addition to teaching students how to involve the geographer in the development and planning process, providing students with information about the challenges facing development processes at .various levels	**Objectives of the study subject**

9.	**Teaching and learning strategies**

. • Interactive lectures and group discussions

Reports and drawings for development and planning •

.Using modern references and sources to enrich the lecture •

.Use the method of detailed explanation of the lecture topics •

.Using maps •

Using the lecture presentation method using a data show projector to present • .development projects in some countries, especially Iraq

.Interactive lectures and group discussions •

Reports and drawings for development and planning •

.Using modern references and sources to enrich the lecture •

.Use the method of detailed explanation of the lecture topics •

.Using maps •

Using the lecture presentation method using a data show projector to present • development projects in some countries, especially Iraq

10. Course structure

Evaluation method	Teaching method	Name of the unit/topic	Required learning outcomes	hours	the week
Class performance and exams	Lecture and discussion style	**The concept of development and sustainable development**	**of** Student definition **development,** and **planning** sustainable development	**4**	**October 1**
Class performance and exams	Lecture and discussion style	**The relationship of development and planning with other sciences**	Introducing the **to the** student **relationship of geography to the concept of development and planning**	**4**	**October 2**
Class performance	Involve students in	**Components and**	Introducing the **to the** student	**4**	**October**

and exams	making brief presentations on the topic	**obstacles to development development**	**components and obstacles of development**		**3**
Evaluating students' research	Text readings and class discussions	**Geographic theories of cities and their relationship to development and planning**	Introducing the **the** student to **theories concerned with the organization and development of place**	**4**	**October 4**
Class performance and exams	Involve students in making brief presentations on the topic	**Human Resource Development**	**of** Student definition **resources human development**	**4**	**Novemb er 1**
The extent of students' participation in discussions	Text readings + class discussions	**Administrativ e development**	Introducing the student to **administrative** and **development** the problems of administrative developing bodies in countries	**4**	**Novemb er 2**
Class performance and exams	Text readings + class discussions	**Agricultural development**	Introducing the **to** student **agricultural development and the role of agriculture in the development process**	**4**	**Novemb er 3**
The extent of students' participation in discussions	Text readings + class discussions	**Agricultural problems in the Arab world**	Definition of student Agricultural problems in the Arab world and ways to develop them	**4**	**Novemb er 4**
The extent of students' participation in discussions	Text readings + class discussions	**industrial development**	Introducing the **to** student **industrial** and **development**	**4**	**Decemb er 1**

			the role of industry in development		
Class performance and exams	Text readings + class discussions	**Countries' experiences in the field of industrial development**	Introducing the **the** student to **French experience and the Iraqi experience in the field of industrial development**	**4**	**January 2**
Evaluating student reports on the concept of the topic	Text readings + class discussions	**Hassia Industrial City and the problems it faced**	Introducing students to the problems that industrial cities suffer from	**4**	**January 3**
Exam	Exam			**4**	**January 4**
Evaluating student reports on the concept of the topic	Lecture + class discussions	**Tourism development**	Introducing the **to tourism** student **development and the concept of tourism planning**	**4**	**February 1**
Monitoring students' understanding of the lecture topic	Lecture + class discussions	**Prospects for developing tourism in Syria and Iraq**	Introducing the **the to** student **prospects for developing Syria and -tourism Iraq as an example**	**4**	**February 2**
Active participation of students in discussions about the lecture topic	Lecture + class discussions	**Natural resources management**	Introducing the **natural** student to **resource management and its role in the development process**	**4**	**March 1**
short exam	Written exam			**4**	**March 2**
Evaluating students' response to the evaluative questions asked about	Present + class discussions	**rationing water use**	Introducing the **to** student **rationalizing the consumption of water resources** and increasing the	**4**	**March 3**

ecture the l topic			supply of traditional water resources		
Evaluating students' interventions on the lecture topic	Present + class discussions	**The importance of rationalizing water resources**	Introducing the **to the** student **importance of rationalizing water resources**	**4**	**March 4**
The extent of students' participation in +discussions	Involve students in providing brief presentations on the lecture topic	**Reusing water in other areas**	Introducing the **to water** student **reuse and ways to - benefit from it** wastewater, domestic, agricultural, and industrial	**4**	**March 4**
The extent of students' participation in +discussions	Lecture and discussion style	**Territory and regional** and **planning** its types	Introducing the **to the** student **concept of territory, regional** and its **planning** types	**4**	**April 1**
short exam	Make students discussion acrobats to discuss the lecture topic	**Regional planning and its relationship with other sciences**	Introducing the **to the** student **relationship of regional planning to other sciences**	**4**	**April 2**
aluating Ev student reports on the lecture concept	Lecture and discussion style	**Regional planning in developed and developing countries**	Introducing the **to regional** student **planning in industrialized and developing countries and the reasons for the varying success and failure of plans in these countries**	**4**	**April 3**
Exam	Exam		Exam	**4**	**April 4**
Student participation in	Lecture and discussion style	**Characteristics and functions of**	Familiarize the **with the** student **characteristics and**	**4**	**May 1**

+discussions		**regional planning**	**functions of regional planning**		
Student participation in +discussions	Lecture and discussion style	Types and methods of regional planning	Introducing the the types student to and methods of regional planning	**4**	**mais 2**
short exam	Lecture and discussion style	**Obstacles to implementin g regional planning**	Introducing the **to the** student **obstacles to applying regional planning**	**4**	**mais3**
Student participation in +discussions	Lecture and discussion style	**Motives for regional planning**	the Defining motives, trends and levels of regional planning	**4**	**May 4**
Exam			Exam of the second month of the second semester	**4**	**May 1**
Paper exam			End of year exams	**4**	**May 2**

11. Course evaluation:

The score is distributed out of 100 as follows:

1- The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.

2- The final written exam score is (50) points.

12. Learning and teaching resources:

	Required textbooks (methodology, if any)
Studies in development geography, Dr. Muhammad - Ali Bahjat Al-Fadhli **Geography and sustainable development prospects, Dr. Majeed Maluk Al-Samarrai**	**Main references (if any)**

All books and scientific journals related to development and planning	**Recommended supporting books and references (scientific journals, reports, ...).**
Journal of the Geographical Society **(Iraqi academic journals (humanitarian journals** **All websites related to development geography and planning**	**Electronic references, website**

Course Name: .1	
Geography of the Arab world	
Course Code: / .2	
/	
Semester / Year: .3	
2026-2025	
Description Preparation Date: .4	
1-10-2025	
Available Attendance Forms: .5	
Weekly	
Number of Credit Hours (Total) / Number of Units (Total) .6	
60 hours	
Course administrator's name (mention all, if more than one name) .7	
Amjad Salem Name : Assistant. Lecturer **amashaan@uowasit.edu.iq Email:**	
Course Objectives .8	
Course Objectives	**Skills Student acquisition .1** **Expand reading skill .2** **Clarifying the most important modern ideas .3**
Teaching and Learning Strategies .9	
Strategy	**1-Education strategy collaborative concept planning.** **2-Teaching strategy brainstorming.** **3-Education strategy notes series**

Course Evaluation .10	
Daily attendance. .1 **Quiz Daily .2** **Monthly Exam .3** **Final Exam .4** **grades for participation to solve questions during the lecture .5**	
Learning and Teaching Resources .6	
Required textbooks (curricular books, if any)	**Geography of the Arab world**
Main references (sources)	**Geography of the Arab World, written by Bashir Al-Taif and others, 2013**
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	**Internet site and virtual library**

Course description form

1Course Name:	
Natural resources	
Course Code: -2	
Semester/Year: -3	
The third phase / 2025-2026	
Date this description was prepared: -4	
1-9-2025	
Available attendance forms: -5	
In-Person	
Number of study hours (total) / number of units (total): -6	
120/ hour, 3/units	
Name of the course administrator (if more than one name is mentioned with the personal email) -7	
1- Dr. Saddam Razzaq Abood Email: **saddamr@uowasit.edu.iq**	
Course Objectives -8	
Objectives of the unit	This simplified description provides a road map on the nature of the vocabulary to be taught in the subject of natural resources, the nature of its provision to students and the intended benefit of teaching this subject and the desired objectives, with some ideas and proposals that we hope will advance the reality of the student and inspire him to consider and reflect on the gifts and natural resources available by God Almighty, and the extent of response to preserve those resources from and sustain them in an optimal manner. Introducing students to natural resources and their types. Enabling students to understand the geographical distribution of each natural resource. And access to depleted natural resources, and a statement of the human role in the sustainability of those resources.
Teaching and learning strategies -9	

	Preparing reports on the geographical distribution of natural resources. • **Using the brainstorming method to attract students' attention.** • **The way to discuss and raise modern topics about natural resources.** • **Use of maps.** • **Using the view of the lecture using the data show projector** • **Preparing reports on the importance of natural resources and ways to preserve them.** • **Determine which natural resources are most vulnerable to depletion and pollution** • **The possibility of sustaining natural resources and educating students about the sustainable environment.** •

10. Course Structure	-10				
Week	Hours	Learning outcomes required for the program*	Module or Topic Name	Learning method	Valuation Method
October1	**4**	**Teaching students the definition of natural resources, their importance, the reasons for studying them, as well as their classification.**	**Definition of natural resources, their importance, reasons for studying them, and methods of studying and classifying them**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**test (oral-)**
2 October	**4**	**Introducing students to the first natural resource, which is the soil, as well as introducing them to the formation factors represented by the base rock, climate, terrain, living organisms and**	**Definition of soil and its components**	**PowerPoint Lecture**	**test (oral-)**

		time.			
October3	4	Introduce students to the physical characteristics of soil, such as color, texture, structure, porosity, permeability, density and temperature.	Soil Characteristics	PowerPoint Lecture	General questions and discussion
October4	4	Introducing students to the most important problems of soil and its relationship to physical characteristics	Soil depletion is a physical problem	PowerPoint Lecture	General questions and discussion
November1	4	Introduce students to the chemical properties of soil reactivity, salinity and fertility.	Soil Characteristics	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
November2	4	Introducing students to the types of soils and studying the types of zonal soils.	Classification of soils, zonal soils.	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
November3	4	Introducing students to what is meant by non-zonal soils and their types.	Classification of soils, non-zonal soils.	theoretical, theoretic, abstract, notional, perspective, paper, academic	Class Performance and Exams

4 November	**4**	**Teaching students to propose successful solutions that address and preserve soil problems.**	**Soil Maintenance**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**General questions and discussion**
December1	**4**		**First Month First Semester Examination**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**examine**
December2	**4**	**Introducing students to soil in Iraq in terms of its types and distribution.**	**Soil in Iraq.**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**General questions and discussion**
December3	**4**	**Introducing students to the concept of natural plant and the factors affecting it, such as climate, soil, terrain and water.**	**The concept of natural plant. and factors influencing it.**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**General questions and discussion**
December4	**4**	**Introducing students to the importance of forests, their problems, their effects, and ways to maintain them.**	**Forests, their importance, problems, implications, methods of forest conservation.**	**PowerPoint Lecture**	**test (oral-)**
January1	**4**	**Teaching students to classify forests according to location and prevailing climatic conditions.**	**Classification of forests.**	**PowerPoint Lecture**	**test (oral-)**

January2	**4**	**Introducing students to the types of weeds from savannah, wilderness and stubbs.**	**Weeds, their types**	**PowerPoint Lecture**	**test (oral-)**
January3	**4**		**Second Month Exam Semester 1**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**A written test**
January4	**4**	**Introducing students to the animal resources that live on land and in water bodies.**	**Animal resources**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**test (oral-)**
February1	**4**	**Introducing students to the water cycle, its elements and its importance.**	**Water resources (water cycle in nature)**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**test (oral-)**
February2			**Spring break.**		
March1	**4**	**Introducing students to freshwater types such as rivers, glaciers and lakes.**	**- Yeah. - Mm-hmm. - Fresh water.**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**test (oral-)**
March2	**4**				

March3	**4**	**Teaching students the physical and chemical properties of the waters of the seas and oceans.**	**:: Oceans and seas**	**PowerPoint Lecture**	**test (oral-)**
March4	**4**	**Familiarize students with the problems faced by water resources, especially from scarcity and pollution.**	**Water resources**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**test (oral-)**
April1	**4**	**Introducing students to the water resources in Iraq, especially rivers, lakes, marshes and groundwater.**	**Water resources in Iraq.**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**Oral questions and test**
April2	**4**	**Introducing students to mineral resources and the factors affecting them.**	**Mineral resources**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**General Discussion and Questions**
April3	**4**		**Semester 2 Month 1 Exam**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**Paper-based exam**
April4	**4**	**Introducing students to the origin of metals and methods of their formation.**	**The origin of metals and the methods of their formation.**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**General Discussion and Questions**

Mays1	**4**	**Teaching students to classify metals and focusing here on the group of metallic minerals.**	**Classification of minerals (group of metallic minerals).**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**General Discussion and Questions**
Mays2	**4**		**Semester 2 Month 2 Examination**	**theoretical, theoretic, abstract, notional, perspective, paper, academic**	**Paper-based exam**
Mays3	**4**		**End of year**		**Written exams**

Course Evaluation -11

The score is distributed out of 100 as follows:

1- The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.

2- The final written exam score is (50) points.

Learning and Teaching Resources: -12

Required textbooks (methodology if any)	**Salam Hatif Ahmed Al-Jubouri, Natural Resources, 2nd Edition, Delir Office, Bab Al-Mu 'adham, 2016.**
Recommended supporting books and references (scientific journals, reports, ...).	• **Safaa Abdul Amir Rashm Al-Asadi, Geography of Natural Resources, Basra University Press, 2018.** • **Omar Ramadan Al-Saadi, Ali Mahmoud Faris, Introduction to Natural Resources, Omar Al-Mukhtar University Publications, Libya, 2008** • **Azad Muhammad Amin al-Naqshabandi and Talb Zarjis Daoud, Geography of Natural Resources, Basra University Press, Basra, 1988.** • **Kazem Shantha Saad, Soil Geography, Dar Al-Sadiq Cultural Foundation, 2016.**

E-References, Web Site	**(iasj) Iraqi Academic Journals Website.** ➢ **Google Scholar** ➢ **Research Gate** ➢ **Various AI Sites** ➢ **Topic Site**

Course description form

1.	**Course Name:**
Microclimate	
2.	**Course Code:**
3.	**Semester/Year:**
The second phase / 2025-2026	
4.	**Date this description was prepared:**
2025 /10 /1	
5.	**Available attendance forms:**
in person	
6.	**Number of study hours (total) / number of units (total):**
120/hour, 4/units	
7.	**Name of the course administrator (if more than one name is mentioned with the personal email)**
1- Asst.Prf.Dr.Nadia Hatem Tuama	**Email:nadiah@uowasit.edu.iq**
8.	**Course objectives**

The student became acquainted with the concept of detailed (micro) climate in geographical regions by studying the elements of climate in different locations of cities and countryside, the terrain features of mountains, plains, and coastal areas, and the methods used to measure it. This makes the student able to know the climatic variations within small regions, as well as using the latest methods to measure the impact of climatic elements on .human health, comfort, and activity	**Objectives of the study subject**

9.	**Teaching and learning strategies**

Follow the method of class discussions ○ Preparing external questions from those sources ○ Follow up on recent external climate sources and references ○ Urging students to follow educational series that are presented in video form on ○ .official scientific links .Conduct daily quick exams with intellectual questions ○ Conduct a brief report circle in which two or more students participate to study ○ a topic related to the curriculum vocabulary .Use maps and illustrative figures ○ Practical applications and training students on using devices for field climate • • .measurements	

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Class performance and exams	Lecture and discussion	Detailed climate concept	Introducing students to the concept of climate science, its most important branches, and the development of detailed climate studies	**4**	**October the first1**
Class performance and exams	Standard method	And its importance	Focus on the most prominent methods of measuring detailed climate indicators	**4**	**October the first2**
Class performance and exams	Practical application		Informing students about the factors controlling the creation of a detailed climate within geographical space	**4**	**October the first3**
Class performance and exams	Lecture and brainstorming		Features of the detailed climate of deserts	**4**	**October the first4**

Class performance and exams	Lecture and brainstorming	Detailed climate measurement methods	Detailed climate features of snow and ice surfaces	**4**	**October the second1**
Class performance and exams	Lecture and discussion	Factors controlling the microclimate	Detailed climate features of coastal areas and ways to benefit from this in the tourism industry	**4**	**October the second2**
Class performance and exams	Lecture and discussion	Detailed climate of the forest (its importance - the effect of the plant canopy on light and the temperature response of the air and soil)	Detailed climate features of plant canopies and their role in the amount of radiation reaching the bottom of the forest, air temperature, and its vertical expression within the forest.	**4**	**October the second3**
Class performance and exams	Lecture and discussion	The effect of forests on atmospheric pressure, wind movement, soil and air moisture, evaporation, condensation, and rain	The effect of the forest on climate variables such as wind movement, direction, speed, condensation, evaporation, and forms of precipitation.	**4**	**October the second4**
Class performance and exams	Lecture and discussion	Exam of the second month of the first semester	Essay, objective and applied questions	**4**	**Canon the first1**
		Spring break		**4**	**Canon the first2**
Written exam	Practical application	Detailed climate of field crops	Identify the detailed climate of field crops of all types, summer and winter	**4**	**Canon the first3**
Class performance and exams	Lecture and discussion	Detailed climate of windbreaks (the concept of windbreaks, their importance and	Learn about the concept of windbreaks, their characteristics, and their importance	**4**	**Canon the first4**

		characteristics)			
Class performance and exams	theoretical	Types of windbreaks	Identify the types of windbreaks	**4**	**Canon the second1**
Class performance and exams	Lecture and discussion	The effect of windbreaks on solar radiation, air temperature, and wind movement	Explaining the role of windbreaks and their impact on climate elements such as radiation, heat, and wind	**4**	**Canon the second2**
Class performance and exams	Lecture and brainstorming	The effect of windbreaks on atmospheric humidity, evaporation, transpiration, condensation and precipitation	Identify the role of windbreaks on humidity, evaporation, transpiration, and forms of condensation and precipitation	**4**	**Canon the second3**
Class performance and exams	Lecture and discussion	Detailed climate of mountainous areas	Identify the detailed climate of the mountainous regions and the valleys adjacent to them	**4**	**Canon the second4**
Written exam		Exam of the first month of the second semester	Essay, objective and applied questions	**4**	**February1**
	Lecture and discussion	Detailed climate of aquatic and barren surfaces	Identify the detailed climate of water surfaces and explain it to barren lands		**February2**
Class performance and exams	Lecture and discussion	Detailed climate of cities (factors that shape the city's climate and the controls controlling it)	Explaining the factors that shape the climate within the city, its impact, and the controls controlling it	**4**	**March1**

Class performance and exams	theoretical	The heat island, its formation factors, and measuring its intensity	Learn about the concept of thermal damage, how it is formed, and ways to measure its intensity mathematically	**4**	**March2**
Class performance and exams		Detailed climate of the countryside	Identify the detailed climate of rural areas adjacent to cities	**4**	**March3**
Class performance and exams	Lecture and application	Detailed climate for cars	How the climate is shaped by the type of car, its speed, traffic congestion, the color of the car, and the type of fuel used	**4**	**March4**
Class performance and exams	Lecture and discussion	Exam of the second month of the second semester	Essay, objective and applied questions	**4**	**April1**
Class performance and exams	Lecture and brainstorming	End of year exams	Essay, objective and applied questions	**4**	**April2**
Written exam	Lecture and brainstorming	Detailed climate of the forest (its importance - the effect of the plant canopy on light and the temperature response of the air and soil)	Features of the detailed climate of deserts	**4**	**April3**
Class performance and exams	Lecture and brainstorming	The effect of forests on atmospheric pressure, wind movement, soil and air moisture, evaporation, condensation, and rain	Detailed climate features of snow and ice surfaces	**4**	**April4**
Class performance and exams	Lecture and brainstorming	Exam of the second month of the first semester	Detailed climate features of coastal areas and ways to benefit from this in the tourism	**4**	**Mays1**

			industry		
Class performance and exams	theoretical	Spring break	Detailed climate features of plant canopies and their role in the amount of radiation reaching the bottom of the forest, air temperature, and its vertical expression within the forest.	**4**	**Mays2**
Class performance and exams	Lecture and brainstorming	Detailed climate of field crops	The effect of the forest on climate variables such as wind movement, direction, speed, condensation, evaporation, and forms of precipitation.	**4**	**Mays3**
Class performance and exams	Lecture and brainstorming	Detailed climate of windbreaks (the concept of windbreaks, their importance and characteristics)	Essay, objective and applied questions	**4**	**Mays4**
Written exam	Standard method	Types of windbreaks		**4**	**May 1**
Written exam		The effect of windbreaks on solar radiation, air temperature, and wind movement	Identify the detailed climate of field crops of all types, summer and winter	**4**	**May 2**

11. Course evaluation:

The score is distributed out of 100 as follows:

1- The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.

2- The final written exam score is (50) points.

12. Learning and teaching resources:

	Required textbooks (methodology, if any)
Detailed climate :1 **Microclimate** :2 **Local climate** :3	**Main references (if any)**
Al-Wajeez in the detailed climate	**Recommended supporting books and references (scientific journals, reports, ...).**
Journal of the Geographical Society **Analytical climate** **Iraqi academic journals (humanitarian journals**	**Electronic references, website**

1- Course Name:
Oil & Energy
2- **Course Code**::
3. Semester/Year:
The second phase / 2025–2026
4. Date this description was prepared:
2025 /10 /1
5. Available attendance forms:
in person

6. Number of study hours (total) / number of units (total):	
120/hour, 4/units	
7. Name of the course administrator (if more than one name is mentioned with the personal email)	
1- M. Mohamed Latif Fathih	Email: **mfdheeh@uowasit.edu.iq**
3- Course Objectives	
Objectives of the unit	Introducing students to renewable and non-renewable energy ources and the most important features and problems of these sources andenabling students to understand the geographical tribution of energy sources and the most important producing consuming countries, as well as identifying the importance of energy sources and their relationship to industrial human activities, whether civil or military, andaccess to depleted energy sources such as oil and natural gas, and explaining the human role in the sustainability of these resources and the xtent of global political tension because of them, andenabling udents to identify any source of more pollution or depletion in raq , the Arab world and the world, and whether it is possible to reduce the impact of its impact, and explaining the international treaties and conferences that have been established in this regard andfamiliarizing students with the problems faced by the exploitation of energy sources and the natural and human factors that prevent this
4- **Teaching and learning strategies**	

	• **Interactive lectures and group discussions.** • **Reports and fees for energy lectures** • **Using modern references and sources to enrich the lecture with regard to energy sources.** • **Using the method of detailed explanation of the lecture topics and asking questions.** • **Using maps and explanatory means.** • **Use the presentation for the lecture using the data show projector.** • **Focus on the study of clean sources of energy, causes, effects, methods of exploitation and the importance of universality.**

5– 10. Course Structure

Week	Hours	Learning outcomes required for the program*	Module or Topic Name	Learning method	Valuation Method
October the first1	2	Enabling the student to define energy, its importance and the reasons for studying it, as well as its classification	Definition and Importance of Energy	Lecture and Brainstorming	Class Performance and Exams
October the first2	2	Introducing students to energy sources and introducing them to the natural and human factors affecting them .	Power Sources	Lecture and Discussion	Class Performance and Exams
October	2	Introducing students to non-	Non-renewable energy sources , oil	Lecture and Brainstormi	Class Performance

the first3		renewable energy sources .		ng	and Exams
Octob er the first4	2	Introducing students to the geographical factors affecting the exploitation of energy sources.	Geographical factors affecting the exploitation of energy sources	Lecture and Brainstormi ng	Class Performance and Exams
Octob er the second 1	2	Introducing students to oil and theories of its formation.	Oil and its formation theories	Lecture and Discussion	Class Performance , Exams and Field Visits
Octob er the second 2	2	Introducing students to geographical distribution, not oil products	Geographical distribution of oil production in the Arab world and globally and the advantages of each	Lecture and discussion	Class Performance and Exams Assign students to calculate evaporation for stations in Iraq
Octob er the second 3	2	Introducing students to how to extract oil	First month Chapter 1	theoretical, theoretic, abstract, notional, perspective, paper, academic	examine
Octob er the	2	Introducing students to the	oil exploration,extractio	Lecture and Discussion	Class Performance

second 4		stages of oil extraction	n, oil transportation,export		and Exams
Canon the first1	2	Teaching students about types of oil	Oil derivatives and their importance as an energy source		
Canon the first2	2	Introducing students to the strategic importance of oil	The role of oil in economic growth and its environmental effects	Lecture and Discussion	Class Performance and Exams
Canon the first3	2	Introducing students to oil industries.	Oil refinery	Lecture and Discussion	Class Performance and Exams
Canon the first4	2	Introducing students to oil industries.	Petrochemical Industries	Lecture and Discussion	Class Performance and Exams
Canon the second 1	2	Introducing students to oil industries.	Second month Chapter 1	theoretical descri ptive	|||UNTR ANSLATE D_CONTE NT_STAR T||| امتحان ورقي|||UNT RANSLAT ED_CONT ENT_END

					| | |
Canon the second 2	2	Introducing students to natural gas	Natural gas continued to form	Lecture and Discussion	Class Performance and Exams
Canon the second 3	2	Introducing students to natural gas	Natural Gas Components, Importance and Uses	Lecture and Discussion	Class Performance and Exams
Canon the second 4	2	Introducing students to natural gas	Production of Natural Gas.	Lecture and Discussion	Class Performance and Exams
February1	2	Introducing students to natural gas	Global and Arab Natural Gas Reserves		
February2			Spring break.		
March 1	2	Introducing students to renewable energy	Renewable Energy	Lecture and Discussion	Class Performance and Exams
March 2	2	Solar energy education for students	Semester 2 Month 1 Exam	theoretical, theoretic, abstract,	Paper-based exam

				notional, perspective, paper, academic	
March 3	2	Solar energy education for students	The importance of solar energy, its advantages and obstacles to its exploitation	Lecture and Brainstorming	Class Performance and Exams
March 4	2	Solar energy education for students	Geographical distribution of global and Arab production and consumption of solar energy	Lecture and Brainstorming	Class Performance and Exams
April1	2	Introducing wind energy to students	Wind energy, its features and determinants	Lecture and Brainstorming	Class Performance and Exams
April2	2	Introducing wind energy to students	Geographical distribution of global and Arab wind energy production and consumption	Lecture and Discussion	Class Performance and Exams
April3	2	Introducing students to hydrological energy	Hydrological energy and its advantages and characteristics		
April4	2	Introducing students to hydrological energy	Semester 2 Month 2 Examination	theoretical, theoretic, abstract, notional, perspective, paper, academic	examine
Mays1	2	Nuclear energy education for students	Nuclear energy	Lecture and Discussion	Class Performance

					and Exams
Mays2	2	Nuclear energy education for students	Areas of use of nuclear energy	Lecture and Discussion	Class Performance and Exams
Mays3	2	Introducing the student to bioenergy	Energetic Power ?	Lecture and Discussion	Class Performance and Exams
Mays4	2	Introducing the student to bioenergy	Types and importance of bioenergy and its areas of use	Lecture and Discussion	Class Performance and Exams
May 1	2	Teaching students about international treaties and organizations related to energy	International Energy Organisations		
May 2	2		End of year		

11- Course Evaluation
Distribute the score out of 100 according to the following agreement: 1-The degree of annual pursuit of (50) degrees and divided into (20) degrees of attendance, participation and activities and(30) degrees of monthly examinations. 2-The final written exam score is (50) marks.

12- Learning and Teaching Resources:	
Required textbooks (methodology if any)	
References (if applicable):	Abdul Moneim Abdul Wahab, Muhammad Azhar Al-Sammak and Azad Muhammad Amin, Geography of Oil and Energy, Dar Al-Kutub for Printing and Publishing, Mosul University, 1981. Yousef Abu Shousha, Contemporary

	Problems, Dar Al-Fikr , Ramallah , 1982. Speech of Sakkar Al-Ani, Economic Geography, University of Baghdad, Baghdad University Press, 1981. Adel Kamal Jameel, Energy and its Future Prospects, Small Encyclopedia No. 33, Baghdad, 1979. Adnan Shihab-Eldin and Mohammed Anwar Malik, Prospects for Utilizing Solar Energy in Kuwait, Organization of Arab Petroleum Exporting Countries, Oil and Arab Cooperation, Volume III Issue IV, Kuwait,1977. British Petroleum bp,bp statistical review of word energy , London, June, 2016. Petroleum press service December, 1973. John, glockwood, causes of climate, London 1979. The world bank group, energy security lssues', Washington dc, December 5,2005. Eden et all' energy economics', Cambridge university press, 1981.
Recommended supporting books and references (scientific journals, reports, ….).	
E-References, Web Site	• Topic Site • arab48 website • Wikipedia. • www.alwaseet-iraq.com • Solarabike Platform Location

urse Name .1
ography Africa and Australia
urse Code: .2
mester/Year: Annual .3
e first phase 2025-2026
te this description was prepared: .4
2/2025
Available attendance forms: .5
person
Number of study hours (total)/number of units (total): .6
hour/ 2 units
Name of the course administrator (if more than one name is mentioned) .7
Assistant teacher:Karim Allawi Khaled **Email kshaiea@uowasit.edu.iq** **Assistant teacher:Hoda Musa Hadi** **Email (hhadi@uowasit.edu.iq)**
Course objectives .8

Studying and knowing the natural features that the continents of Africa and Australia enjoy, such as rivers, natural pastures, climatic characteristics, population diversity, and their way of life, in addition to knowing important natural resources such as gold, diamonds, silver, and oil reservoirs, and relying on advanced scientific programs and techniques, as well as using PowerPoint, the smart board, and data shows to present lectures.	- Identify the basic concepts in geographyAfrica and Australia. - Identify the geographical and astronomical locationFor the continents of Africa and Australia. - Identify natural characteristicsFor the continents of Africa and Australia. - Recognizing human characteristicsFor the

	continents of Africa and Australia. - Identify population distribution and the factors affecting it. -Identify economic characteristicsFor the continents of Africa and Australia.

Teaching and learning strategies .9	
Education strategy collaborative concept planning. Teaching strategy brainstorming. Education strategy notes series.	**e strategy**

Course evaluation .10	
distributionAs follows: 25Monthly and daily exam grades for the first semester/And25Monthly and daily exam grades for the second semester. 50Score for final exams.	
Learning and teaching resources .11	
.. Ibrahim Abdul-Jabbar Al-Mashhadani, Dr. Ahmed Najm al-Din alija, Sub-Saharan Africa, Baghdad University Press, Baghdad, 2010	Required textbooks (methodology, if any)
1- Dr. Ibrahim Abdul-Jabbar Al-Mashhadani, Dr. Ahmed Najm al-Din Falija, Sub-Saharan Africa, Baghdad University Press, Baghdad, 2010. **2.DudleyStamp,CBE,DLIT,DSC,LLD,EKOND,A Regional Geography, Australia and New Zealand, Part III, Ninth Edition, Longmans, 1963.** **3- Dr. Taha Hammad Al-Hadithi, Sub-Saharan Africa, Mosul University Press, Mosul, 1990.**	Main references (sources)
Dr.. Taha Hammad Al-Hadithi, Sub-Saharan Africa, Mosul University Press, Mosul, 1990	Recommended supporting books and references (scientific journals, reports….)
Internet site and virtual library ✓ Research Gate ✓ Various artificial intelligence sites ✓ Subject site ✓	Electronic references, Internet sites

12-Course structure

Evaluation method	Teaching method	Name of the unit or topic	Required learning outcomes	hours	the week
the exams Editorial	Deliverance-discussion Deliverance-discussion	**First: Geography of Africa (sub-Saharan).** **Second: Geographical location**	Introducing students to the continent of Africa and its geographical location	2	**the first**
the exams Editorial	Deliverance-discussion	**1- Area data.**	Introducing students to the area of the African continent	2	**the second**
the exams	Deliverance-	**2- Geological**	Definition of	2	**the third**

Editorial the exams Editorial	discussion Deliverance-discussion	**structure.** **3- Surface appearances.**	studentsGeological structure and surface features toAfrica		
the exams Editorial	Deliverance-discussion	**4- Climate and climatic regions**	Definition of studentsWith a climateAfricaand climatic regions	2	**the fourth**
the exams Editorial	Deliverance-discussion	**5- Natural vegetation and plant regions**	Definition of studentsWith natural plant toAfricaand plant regions	2	**Fifth**
the exams Editorial	Deliverance, discussion, live questioning	**6- Soil characteristics**	Definition of studentsWith soil properties toAfrica	2	**VI**
the exams Editorial the exams Editorial	Deliverance-discussion Deliverance-discussion	**7- Water resources (surface and groundwater)** **Third: Human data.** **1- Population, composition and distribution**	Definition of studentsWith resourcesAfricaWatercolor **And human characteristics in terms of distribution and composition of the population**	2	**Seventh**
the exams Editorial	Deliverance-discussion	**2- Economic potential (agriculture and forestry)**	Definition of studentsWith the economic capabilities available inAfrica	2	**VIII**
the exams Editorial	Deliverance-discussion Deliverance-discussion	**3- Minerals and industry** **4- Transportation methods**	Definition of studentsWith economic resources and transportation methods inAfrica	2	**Ninth**
the exams Editorial	-	the exam	**-**	2	**The tenth**
the exams Editorial	Deliverance-discussion	**Fourth: African countries - a regional study:** **1- The Republic of South Africa (a**	Model study forSouth Africa	2	**eleventh**

		model for countries in the south of the continent)			
the exams Editorial	Deliverance-discussion	**2- Tanzania and Kenya (a model for countries in the east of the continent)**	A pilot study in East Africa	2	**Twelveth**
the exams Editorial	Deliverance-discussion	**3- Nigeria and Ghana (a model for countries in the West of the continent)**	A pilot study in West Africa	2	**Thirteenth**
the exams Editorial	Deliverance, discussion, live questioning	**4- Zaire and Central Africa (a model for countries in the middle of the continent)**	A pilot study in Central Africa	2	**fourteenth**
the exams Editorial	Deliverance-discussion	**1- General consideration**	A general description of the continent of Australia	2	**Fifteenth**
the exams Editorial	Deliverance-discussion	**2- Physical Features**	Introducing students to the natural characteristics of Australia	2	**Sixteen**
the exams Editorial the exams Editorial	Deliverance-discussion Deliverance-discussion	**3- Geology**	Introducing students to the geology of Australia	2	**seventeenth**
the exams Editorial the exams Editorial	Deliverance-discussion Deliverance-discussion	**4- Climate, Climatic Regions**	Introducing students to the climate of the continent and climate regions	2	**Eighteen**
the exams Editorial	Deliverance-discussion	**5- Natural Vegetation, Forests and Forestry**	Introducing students to the natural plants and forests of the Australian continent	2	**Nineteenth**
the exams	Deliverance, discussion,	**6- Agriculture Agricultural**	Introducing students to agriculture and agricultural	2	**The**

Editorial	live questioning	**Products**	production		**twentieth**
the exams Editorial	Deliverance-discussion	**7- Live stocks, Sheep, Cahle and other Live stocks**	Introducing students to livestock in Australia	2	**twenty one**
the exams Editorial	Deliverance-discussion	**8- Artesian water and irrigation**	Introducing students to water resources in Australia	2	**twenty tow**
the exams Editorial	Deliverance-discussion	**9- Population**	Introducing students to the inhabitants of the continent of Australia	2	**twenty third**
the exams Editorial	Deliverance-discussion	**10- Industry**	Introducing students to the industrial reality in Australia	2	**twenty fourth**
the exams Editorial	Deliverance, discussion, live questioning	**11- Communications**	Introducing students to the reality of internal and external communications in New Zealand	2	**25th**
the exams Editorial	Deliverance-discussion	**12- Foreign Trade of Australia, New Zealand**	Introducing students to the foreign trade of Australia and New Zealand	2	**twenty-sixth**
the exams Editorial	Deliverance, discussion, live questioning	**13- The Natural Region of New Zealand**	Introducing students to the natural region in New Zealand	2	**27th**
the exams Editorial	Deliverance-discussion	**14- North Island and South Island.** *** Climate**	Introducing students to climate and climatic regions in New Zealand	2	**Twenty-eighth**
the exams Editorial	Deliverance, discussion, live questioning	**15* Natural Vegetable**	Introducing students to the natural plants of New Zealand	2	**XXIX**
the exams Editorial	-	the exam	-	2	**Thirty**

Course Description Form

11. Course Name:	
Developmental psychology	
12. Course Code: /	
/	
13. Semester / Year:	
2026-2025	
14. Description Preparation Date:	
1-10-2025	
15.Available Attendance Forms:	
Weekly	
16.Number of Credit Hours (Total) / Number of Units (Total)	
60 hours	
17. Course administrator's name (mention all, if more than one name)	
Name : Dr. drqaam radh Abd Al- Seed **drqaam222@uowasit.edu.iq Email:**	
18. Course Objectives	
Course Objectives	- Introducing students to the importance of developmental psychology and its role in the educational process 2- Introducing students to the basic concepts in developmental psychology 3- Providing students with information about the different stages of growth and the demands of each stage 4- Providing students with information for every aspect of growth 5- Providing students with information about mental development in childhood

	6- Providing students with information about physical development in childhood 7- Providing students with information about emotional development in childhood 8- Providing students with information about motor development in childhood

19. Teaching and Learning Strategies	
Strategy	1- The lecture method 2- The discussion method 3- Method of question and answer 4- Method of brainstorming

20. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1 2 3 4 5 6 7 8 9 10 11 12 13		- Complete knowledge Excellent in developmental psychology 2. Study and knowledge Growth principles and general foundations . 3. Familiarity with all Aspects of life stages and their developmental demands. 4. Trying to identify theories of developmental psychology . 5. The influence of genetics and environment on sperm 6- Maturity and learning 7- Stages and manifestations of growth 8- Educational applications Somatic growth 9-The child's physical development	Developmental psychology Growth and development, principles of growth and its general foundations Stages of pregnancy and the demands of growth therein The importance of studying developmental psychology and its research methods) Factors that affect growth Maturity and learning Stages and manifestations of	ctures, scussio ns and nalysis, And watch eatrical rforma nces using chnical means His talk like Offers werPoi and movies	Written exams - luating the student hrough is class forman ce and rticipati on in various ctivities - eamwor k - bservati and llow-up

14 15 Vacation 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30		10-Answer each question Topic that is directed by students, whether from the textbook or from outside it 11- Asking students questions in order to answer them	growth The child's linguistic development Socialization social development	e video And ıstrativ means. 2- onnect Events storical With pinions h for udents	

21. Course Evaluation	
7. Distribution is as follows: 25 marks for monthly and daily exams for the first semester. 25 marks for monthly and daily exams for the second semester. 50 marks for final exams	
8. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Developmental and childhood psychology Family in Islam For the martyr Muhammad Al-Sadr
Main references (sources)	Nothing

Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	All websites

Course description form

1. Statistics : Course name
2. : Course Code
3. Annual : Year / Semester
Annual
4. Date this description was prepared: 09/1/2025
5. Available forms of attendance:
My presence only
6. :(Number of study hours (total)/number of units (total
An hour a week 2 . An hour annually 60
7. Name of the course administrator (if more than one name is (mentioned
: Email Kanani-Prof. Dr. Malik Nasser Aboud Al : Nar mnasir@uowasit.edu.iq

8. Course objectives	
• ..... • ..... •	To be familiar with using different statistical .methods and extrapolating statistical results Know the analysis and management of : B2 .statistical results Finding correlations between dependent -3 B

	and independent variables To learn how to deal with different -B4 .statistical methods
9. Teaching and learning strategies	

10- Course structure					
Evaluation method	Teaching method	Name of the unit/topic	learning Required outcomes	hours	the week
Daily tests	Explanation by adopting white Powered	The concept of statistics, types of data, types of statistics	The student gets to know the concept of statistics	2	1
Daily tests	Explanation by adopting white Powered	Steps of the scientific method, description of the research environment and conditions, data collection, data presentation, and data analysis	about the Learn statistical method	2	2
Daily tests	Explanation by adopting white Powered	Data collection, data sources, methods of obtaining data	The student learns about the sources of data collection	2	3
Daily tests	Explanation by adopting white Powered	Comprehensive survey, sampling method, questionnaire	For the student to know the methods of collecting data	2	4

Daily tests	Explanation by adopting white Powered	Classification and tabulation of data, temporal tabulation, geographic tabulation	The student learns about methods of classifying and tabulating data	2	5
Daily tests	Explanation by adopting white Powered	Quantitative tab, descriptive tab, graphical display of unclassified data	For the student to become familiar with methods of classifying data	2	6
Daily tests	Explanation by adopting white Powered	Data distribution display, tabular display of .data	The student learns about ways to display data	2	7
Daily tests	Explanation by adopting white Powered	Frequency distribution, proportional frequency distribution, binary frequency) distribution (paired	The student will know the types of frequency distribution	2	8
Daily tests	Explanation by adopting white	Graphical display of tabulated data	The student learns about ways to display data	2	9

	Powered				
Daily tests	Explanation by adopting white Powered	Practical applications for displaying data	The student will practice applying graphical presentation of data	2	10
Daily tests	Explanation by adopting white Powered	Statistical samples Basic concepts Sample selection stages	For the student to become familiar with statistical samples	2	11
Daily tests	Explanation by adopting white Powered	Types of samples Sample volume The extent to which it represents the study population		2	12
Daily tests	Explanation by adopting white Powered	Measures of central tendency The arithmetic mean of tabulated data The	The student will be familiar with the measures of central tendency	2	13

		arithmetic mean of ungrouped data			
Daily tests	Explanation by adopting white Powered	Median for classified data Median for unclassified data, mode	The student gets to know the medium and mode	2	14
Daily tests	Explanation by adopting white Powered	Practical applications of measures of central tendency	For the student to apply	2	15
Daily tests	Explanation by adopting white Powered	Measures of dispersion and dissimilarity Introduction to the most important metrics Term	For the student to become familiar dispersion with measures	2	16
Daily tests	Explanation by adopting white Powered	Standard deviation of tabulated data Standard deviation of ungrouped	For the student to know the standard deviation	2	17

		data			
Daily tests	Explanation by adopting white Powered	Practical applications of standard deviation	To apply the good deed	2	18
Daily tests	Explanation by adopting white Powered	Variance for tabulated data Variance for ungrouped data	For the student to recognize contrast	2	19
Daily tests	Explanation by adopting white Powered	Practical applications of contrast	For the student to apply	2	20
Daily tests	Explanation by adopting white Powered	The standard score, its importance, use, and method of calculating it	For the student to know the standard grade	2	21
Daily tests	Explanation by adopting white Powered	Standard grade practical applications		2	
Daily tests	Explanation by adopting white	Correlation, its concept and types	For the student to recognize the connection	2	22

	Powered				
Daily tests	Explanation by adopting white Powered	Linear correlation Definition of linear correlation coefficient Calculating methods for classified data and unclassified data Pearson correlation coefficient	Applications of the standard score process, methods for calculating correlation	2	24
Daily tests	Explanation by adopting white Powered	Correlation of descriptive variables Rank correlation coefficient	For the student to recognize the correlation of ranks	2	25
Daily tests	Explanation by adopting white Powered	Spearman correlation coefficient Kendall's correlation coefficient	Spearman’s correlation coefficient and Kendall’s correlation	2	26
Daily tests	Explanation by	Attribute correlation	The student gets to know the	2	27

	adopting white Powered	coefficient Compatibility tables, compatibility coefficient, coupling coefficient	correlation coefficient of attributes		
Daily tests	Explanation by adopting white Powered	Practical applications for extracting the correlation coefficient	student to For the apply	2	28
Daily tests	Explanation by adopting white Powered	Simple linear regression Definition of regression analysis Apply simple linear regression	The student will be familiar with regression analysis	2	29
Daily tests	Explanation by adopting white Powered	Practical applications for extracting simple linear regression coefficient	For the student to apply	2	30

1. Infrastructure

Principles of Statistics written by Dr. Mashhadani and Dr. Amir -Mahmoud Al Hanna Mazhar	1- Required prescribed books
	2- Main references (sources)
Rawi, Introduction to-Khasha Al Statistics, University of Mosul, 1984 **-Rawi, Mahmoud Al-Khasha Al Muhammad, -Mashhadani, and Naeem Al .Principles of Statistics**	أ) Recommended books and references (scientific (.....,journals, reports
	ب) Electronic references, ...,websites

2. Course development plan

10. Weather and climate science : Course name	
11. : Course Code	
12. Annual : Year / Semester	
Annual	
13. Date this description was prepared: 09/1/2025	
14. Available forms of attendance:	
My presence only	
15.:(Number of study hours (total)/number of units (total	
An hour a week 2 . An hour annually 60	
16. the course administrator (if more than one name is Name of (mentioned	
: Email Kanani-Prof. Dr. Malik Nasser Aboud Al : Nar mnasir@uowasit.edu.iq	
17. Course objectives	
• ..... • ..... •	Knowledge of weather and climate elements and the factors affecting .them Knowledge of the geographical -A2 variation of climate elements and its . various phenomena with basic concepts Familiarity -A3

	and scientific terminology related to .weather and climate science Knowledge of recent trends in -A4 the issue climate science, especially the ozone hole, , of climate change .acid rain, and the heat island Developing the cognitive aspect -5- A of methods for measuring and monitoring climate elements and phenomena at weather monitoring .stations students to recognize the For -A6 mplex relationships to which co .climate elements are linked
18. Teaching and learning strategies	
1- .Educational strategy, collaborative concept planning 2- .Brainstorming education strategy 3- Education Strategy Notes Series	The strategy

10- Course structure					
Evaluation method	Teaching method	Name of the unit/topic	Required learning outcomes	hours	the week
Daily and monthly tests	Show PowerPoint slides Use white Powered	The concept of climate science and its relationship with other sciences, fields of ,climate science		2	1
Daily and monthly tests	Show PowerPoint slides Use white Powered	Modern trends in the study of climatology		2	2
Daily and monthly tests	Show PowerPoint slides Use white Powered	Atmosphere Atmospheric components		2	3
Daily and monthly tests	Show PowerPoint slides Use white Powered	Layers of the atmosphere Atmospheric pollution		2	4

Daily and monthly tests	Show PowerPoint slides Use white Powered	Solar radiation Solar constant Measurement of solar radiation Factors affecting solar radiation		2	5
Daily and monthly tests	Show PowerPoint slides Use white Powered	Geographic distribution of solar radiation Radiation budget of the Earth's surface Terrestrial radiation		2	6
Daily and monthly tests	Show PowerPoint slides Use white Powered	the heat Heat concept Temperature concept Temperature measurement the heat		2	7
Daily and monthly tests	Show PowerPoint slides Use white Powered	Geographic distribution of temperatures Factors affecting the geographical distribution of grades		2	8
Daily and monthly tests	Show PowerPoint slides Use white Powered	Vertical temperature change Thermal anomaly Thermal inversion		2	9

Daily and monthly tests	Show PowerPoint slides Use white Powered	Atmospheric pressure Its concept, its importance Factors affecting atmospheric pressure atmospheric Representing pressure on surface and upper weather maps and static pressure levels		2	10
Daily and monthly tests	Show PowerPoint slides Use white Powered	Zonal distribution of atmospheric pressure Geographic distribution of atmospheric pressure		2	11
Daily and monthly tests	Show PowerPoint slides Use white Powered	Wind Its concept Factors affecting wind movement Decline in atmospheric pressure Coriolis force Friction force		2	12
Daily and monthly tests	Show PowerPoint slides Use white Powered	of wind Types Permanent winds Local winds Land and sea breeze Mountain and valley breeze		2	13
Daily and	Show	Warm wind		2	14

monthly tests	PowerPoint slides Use white Powered	The winds of the fifth Circo winds Tribal Harmattan Toxins The fohn Shnook Cold wind Bora The brookfielders			
Daily and monthly tests	Show PowerPoint slides Use white Powered	Air masses Its concept Its importance Classification of areas according to their exposure to air masses Classification of air masses		2	15
Daily and monthly tests	Show PowerPoint slides Use white Powered	Air masses affecting the Mediterranean climate Air masses affecting the climate of Iraq		2	16
Daily and monthly tests	Show PowerPoint slides Use white	Air fronts Its concept Its importance		2	17

	Powered	Its movement of fronts according to Types the circumstances of their formation			
Daily and monthly tests	Show PowerPoint slides Use white Powered	Weather depressions Its types Frontal depressions Thermal depressions Terrain depressions		2	18
Daily and monthly tests	Show PowerPoint slides Use white Powered	Types of air fronts according to their geographical location Aerobic Weather conditions accompanying air fronts		2	19
Daily and monthly tests	Show PowerPoint slides Use white Powered	Tropical cyclones tropical cyclone Stages of development The hurricane Tornado Typhon		2	20
Daily and tests monthly	Show PowerPoint slides Use white Powered	Thunderstorms Stages of thunderstorm formation Lightning Thunder		2	21
Daily and	Show PowerPoi	Air humidity		2	22

monthly tests	nt slides Use white Powered	Atmospheric humidity terms Measuring air humidity			
Daily and monthly tests	Show PowerPoi slides nt Use white Powered	Condensation, its concept Condensation conditions Types of condensation the fog Dew Frost		2	23
Daily and monthly tests	Show PowerPoi nt slides Use white Powered	the clouds Types of clouds Classification of clouds		2	24
Daily and monthly tests	Show PowerPoi nt slides Use white Powered	Rain concept Types of rain Convective rain Terrain rain Hurricane rain Rainfall systems		2	25
Daily and monthly tests	Show PowerPoi nt slides Use white	Freezing rain (cold (ureters the snow		2	26

	Powered				
Daily and monthly tests	Show PowerPoint slides Use white Powered	Evaporation His concept Factors affecting it measurement Evaporation		2	27
Daily and monthly tests	Show PowerPoint slides Use white Powered	Climatic classifications Its concept Its importance Its types		2	28
Daily and monthly tests	Show PowerPoint slides Use white Powered	Köppen classification classification Thornthwaite		2	29
Daily and monthly tests	Show PowerPoint slides Use white Powered	Practical examples of climate classifications		2	30

3. Infrastructure	
written by Dr. Sabah Mahmoud Climatology .Bayati, 2000-Rawi and Adnan Hazza Al-Al	3- Required prescribed books
Principles of Climatology, Qusay Abdel .Samarrai, 2008-Majeed Al	4- Main references (sources)

Climatology, Noman Contemporary .Shehadeh, 2009	ت) Recommended books and references (scientific (.....,journals, reports
NOAA Plymoth.vortex.edu	ث) Electronic references, ...,websites

Course description form

1. **Course Name**:
Agriculture geography
2. **Course Code**:
3. **Semester/Year**:

The third phase / 2025–2026
4. Date this description was prepared:
2025 /10 /1
5. Available attendance forms:
in person
6. Number of study hours (total) / number of units (total):
120/hour, 4/units
7. Name of the course administrator (if more than one name is mentioned with the personal email)
1– A.Dr.. Shakir msear lafta **Email: shmsear@uowasit.edu.iq**
8. Course objectives

A- Cognitive objectives	**Objectives of the study subject**
A1- Informing students about the importance of agricultural geography	
A2- Identify the problems of agricultural geography and develop solutions to address them	
A3- Linking the problems of agricultural geography to	

natural and human factors A4- Addressing the problems facing agricultural production A5- Knowledge of modern techniques used in agricultural geography B - The program's skill objectives B1 - Drawing maps of agricultural lands and determining agricultural areas B2 - Field study of agricultural problems and development of realistic solutions for them B3 - Classification of agricultural lands according to their productive potential	

9.	**Teaching and learning strategies**

Interactive lectures and group discussions. • Reports and drawings for agricultural lectures • Using modern agricultural references and sources to enrich the lecture. • Use the method of detailed explanation of the lecture topics. • Using maps. • Use the lecture presentation method using a data show device • Focus on studying agricultural change, its causes, effects, and methods of adaptation

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes		the week
Class performance and exams	Lecture and brainstorming		The concept of agricultural geography and its relationship with other sciences	4	October the first1

Class performance and exams	**Lecture and discussion**		The emergence and spread of agriculture	**4**	**October the first2**
Class performance and exams	**Lecture and brainstorming**		Agriculture characteristics	**4**	**October the first3**
Class performance and exams	**Lecture and brainstorming**		Characteristics of agricultural production	**4**	**October the first4**
Class performance, exams and field visits	**Lecture and discussion**		Geographical factors affecting agriculture	**4**	**October the second1**

Class performance and exams **Assigning students to calculate evaporation for stations in Iraq**	**Standard method** Practical application		Natural factors	**4**	**October the second2**
Class performance and exams	**Standard method** **Practical application**		Surface and climate	**4**	**October the second3**
Class performance and	**Standard method** Practical		Water resources and soil	**4**	**October the second4**

exams	applicatio n				
Paper exam	**theoretic al**	**First month exam, first semester**	Human factors	**4**	**Canon the first1**
Class performa nce and exams	**Standard method practical applicati on**		Population and labor force	**4**	**Canon the first2**
Class performa nce and exams	**Lecture and discussio n**		Economic factors market capital transportation	**4**	**Canon the first3**
Class performa nce and exams	**Lecture and discussio n**		State policy and social factors	**4**	**Canon the first4**

Class performance and exams	**Lecture and brainstorming**		Life factors	**4**	**Canon the second1**
Class performance and exams	**Lecture and application**		Agricultural classification	**4**	**Canon the second2**
Class performance and exams	**Lecture and application**		Waltz classification	**4**	**Canon the second3**
Class performance and exams	**Lecture and application**		Modern classifications	**4**	**Canon the second4**
Paper	**theoretic**	**Exam of the second month**	Agricultural systems	**4**	**February**

exam	**al**	**of the first semester**			**1**
		Spring break			**February 2**
Class performance and exams	**Lecture and application**	Human classifications Climate and human comfort	Agricultural patterns	**4**	**March1**
Class performance and exams	**Lecture and application**		agricultural regions	**4**	**March2**
Class performance and exams	**Lecture and brainstorming**		The most important agricultural crops (cereal crops)	**4**	**March3**
Class performance and exams	**Lecture and brainstorming**		Legumes	**4**	**March4**

Class performance and exams	**Lecture and brainstorming**		Stimulants and drugs	**4**	**April1**
Class performance and exams	**Lecture and application**		Agricultural patterns	**4**	**April2**
Paper exam	**theoretical**	**Exam of the first month of the second semester**		**4**	**April3**
Class performance and exams	**Lecture and application**		Vegetables	**4**	**April4**
Class performa	**Lecture and**		Fruits and palms	**4**	**Mays1**

nce and exams	**brainstorming**				
Class performance and exams	**Lecture and application**		Livestock (sheep and goats)	**4**	**Mays2**
Class performance and exams	**Lecture and application**		Cows and buffalo	**4**	**Mays3**
Class performance and exams	**Lecture and application**		Fish wealth and bees	**4**	**Mays4**
Paper exam	**theoretical**	**Exam of the second month of the second semester**			**May 1**

		End of year exams			**May 2**

11. Course evaluation:
The score is distributed out of 100 as follows: **1– The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.** **2– The final written exam score is (50) points.**
12. Learning and teaching resources:

	Required textbooks (methodology, if any)
1- Nouri Khalil Al-Barazi, Ibrahim Abdul-Jabbar Al-Mashhadani, Agricultural Geography, 1st edition, Baghdad, 1980. 2- Fundamentals of the Geography of Agriculture, Abbas Fadel Al-Saadi, 1st edition, Al-Wadah Publishing House, 2019. 3- Kazem Abadi Al-Jassem, Geography of Agriculture, 1st edition, Amman, 2015.	**Main references (if any)**
	Recommended supporting books and references (scientific journals, reports,

	Electronic references, website

1.	**Course Name:**
Biogeography	
2.	**Course Code:**
3.	**Semester/Year:**
The first stage / 2025-2026	
4.	**Date this description was prepared:**
2025 /10 /1	
5.	**Available attendance forms:**
in person	
6.	**Number of study hours (total) / number of units (total):**
hours per week / 60 hours per year 2	

7. Name of the course administrator (if more than one name is mentioned with the personal email)	
Teacher: Abbas Tarrad Sachit **Email: asachit@uowasit.edu.iq**	
8. Course objectives	
1 **- Introducing students to the concept of biogeography, its importance and development.** **2- Study and analysis of the biological environmental system.** **3- Study the factors affecting plant and animal biological species.** **4- Study of biological regions in the world.** **5- Learning about biodiversity, natural reserves, and preserving the biological balance.**	**Objectives of the study subject**
9. Teaching and learning strategies	
• Using modern references and sources to enrich the lecture on biogeography. **• Use the method of detailed explanation of the lecture topics.** **• Use interactive maps.** **• Use the lecture presentation method using a projector (Data Show).** **• Using references and scientific sources in teaching biogeography.**	

10. Course structure					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required learning outcomes**	**hours**	**the week**
Class performance	**Lecture and**	**Biogeography, its definition and**	**Study the concept of biogeography and its**	2	**October the**

and exams	discussion	methods	methods		first1
Class performance and exams	Lecture and discussion	The importance of biogeography	Learn about the importance of biogeography	2	October the first2
Class performance and exams	Lecture and discussion	Biogeography Jobs	Addressing the functions of biogeography	2	October the first3
Class performance and exams	Lecture and discussion	Branches of biogeography and their relationship to other sciences	Analysis of the branches of biogeography and their	2	October the first4
Class performance, exams and field visits	Lecture and brainstorming	The biosphere, its nature, limits of its formation and importance	relationships with other sciences	2	October the second1
Class performance and exams Assigning students to calculate evaporation for stations in Iraq	Standard method Practical application	The spread of neighborhoods	Study of the biosphere	2	October the second2
Class performance and exams	Standard method Practical application	Natural obstacles to the spread of organisms	Analysis of natural factors of biological propagation	2	October the second3
Class performance and exams	Standard method Practical application	Formation of the regions of living organisms	Study how organisms' regions are formed	2	October the second4
Paper exam	theoretical	First month exam, first semester		2	Decemberth e first1

Class performance and exams	Lecture and brainstorming	Environmental factors and their relationship with living organisms	Study the factors affecting the spread of organisms	2	Decemberth e first2
Class performance and exams	Lecture and discussion	Climatic factors (light)	Study of climate factor	2	Decemberth e first3
Class performance and exams	Lecture and discussion	Temperatures	Temperature study	2	Decemberth e first4
Class performance and exams	Lecture and discussion	Humidity	Humidity study	2	December the second1
Class performance and exams	Lecture and discussion	Wind	Wind factor study	2	Decemberth e second2
Class performance and exams	Lecture and brainstorming	Soil factor, terrain factors	Study of soil and terrain factors	2	December the second3
Class performance and exams	Lecture and discussion	Human factor	Human factor analysis	2	December the second4
Paper exam	theoretical	Exam of the second month of the first semester		2	February1
		Spring break			February2
Class performance and exams	Lecture and discussion	Vital relationships	Analysis of biological relationships	2	March1
Class performance and exams	Lecture and brainstorming	Biological environments on Earth (marine and ocean water (environment	Study of biological environments	2	March2
Class performance and exams	Lecture and discussion	Life in the middle is despair	Learn about the nature of life on land	2	March3

Class performance and exams	**Lecture and discussion**	**Bioregions**	**Analysis of bioregions**	2	**March4**
Class performance and exams	**Lecture and discussion**	**Tropical forest region, monsoon forest region and savannah region**	**Analysis of tropical, monsoon and savannah regions**	2	**April1**
Class performance and exams	**Lecture and discussion**	**Temperate forest region, cold forest region**	**Study of the temperate and cold forest region**	2	**April2**
Paper exam	**Lecture and discussion**	**Exam of the first month of the second semester**		2	**April3**
Class performance and exams	**Lecture and discussion**	**Desert region, tundra region**	**Study of the desert region and tundra areas**	2	**April4**
Class performance and exams	**Lecture and discussion**	**Natural reserves, marine protected areas**	**Learn about natural reserves**	2	**Mays1**
Class performance and exams	**Lecture and brainstorming**	**Ecosystem and green belts**	**Study of the ecosystem and vegetation cover**	2	**Mays2**
Class performance and exams	**Lecture and discussion**	**Biodiversity**	**Understand the topic of biodiversity**	2	**Mays3**
Class performance and exams	**Lecture and discussion**	**Exam of the second month of the second semester**		2	**May 1**
Paper exam	**theoretical**	**End of year exams**		2	**May 2**

1. Educational Institution	Wasit University/College of Education for Human Sciences
2. scientific department	Geography

3. Course Code:	Tourist Geography/ Phase III
4. Available Attendance Forms:	Daily
5. Term / Year: Annual	2025/2025
6. Number of study hours (total)	2 hours per week
7. Description Preparation Date	1/10/2025
8. Course Objectives	
- Knowledge of the concept and definition of tourist geography and its diversity	
- **Studying research methods in tourism geography.**	
- **Studying tourism geography and comparing it to tourism in the countries of the world .**	
- **Knowledge of the concept of tourism, schools in their diversity and forms, tourism organizations and their impact on the development of the country's economy.**	
- **Making students able to understand tourism, its stages, investment and laws.**	
- **Identify the natural and human factors and their impact on the strength and development of the state.**	
- **Identify the environmental effects of the problems facing tourism .**	
- **Studying tourism in terms of its concepts, elements, development, forms and theories .**	
- **Studying the tourism industry and its role in the country's economy.**	
- **Introducing the student to tourism and the theories of tourism originated.**	

9. Course Outcomes and Teaching, Learning and Evaluation Methods

A- Knowledge Objectives

A1- Enabling students to use scientific means (data show) to show films and lectures

A2- Identifying the tourist geography.

A3-The student should be acquainted with the importance of studying natural and human factors and their impact on the development of the arena.

A4-Developing Talib's ability to develop tourism and solve environmental problems that hinder the advancement of tourism.

A5- Introducing students to the role of tourism and its political, economic and social effects.

A6- Developing the student's ability to know the types of tourism, its theories, industry and investment.

A7- Developingthe student's abilities to know the tourism environment, the most important tourist countries and the types of transport necessary for tourism.

A8- Making the student able to face the tourist problems, roads and programs necessary for their development.

B - Course Skills Objectives

B1- Organizing education regarding the geography of tourism.

B2-Empowering the student to build a future vision towards understanding tourism conflicts.

B3-To be able to prepare reports and research on the geography of tourism.

B4-Enabling the student to understand the difference between natural and human factors affecting tourism.

B5-Developing the student's ability through the skills of feedback on the required subject.

Teaching & Learning

1- Lecture Method
2- Presentation Presenting the problem and how to find solutions to it.
3- method (discussion-)
4- Questionnaire method
5- Focus on a comparative approach to communicating information to the student
6- Encourage students to self-learn
7- Enabling the student to use modern methods in the lecture (Dato 'Show).

Evaluation Method
- Daily and monthly scientific tests. - Oral and written tests. - Quarterly and final tests.
C- Emotional and value objectives C1- Developing an educated conscious generation and instilling patriotism and patriotism in it. 2- Deepening the student's understanding of the importance of tourism and how to preserve its institutions and tourist monuments. C3-Raising the student's awareness of the fact that the recreational aspect does not prevail over the scientific aspect and its personal impact is complementary to the other . C4-Confronting the types of terrorism facing the homeland.
Teaching & Learning
- recitation method - method (discussion-) - Method of Live Interrogation. - Regular education. - Urging the student to expand his knowledge in all journals.
Valuation Methods
(a) For daily, monthly, and quarterly scientific tests.

(d) Transferred general and qualifying skills (other skills related to employability and personal development).

D1- Self-education and organized .

D2-Providing continuous education opportunities for students and motivating them to do so.

With a propedeutic certificate of a university degree programme (WO);

D4- Performs work within the jurisdiction

D5- Balanced personality

irresponsible

D7- Its ability to influence and positively affect

10. 10. Course Structure					
Week	Hours	Learning outcomes required for the program*	Module Name/ or Topic	teaching method	Valuation Method
1	2	referred to in the previous axis and each according to the content	Introduction to the Concept and Evolution of Tourism Geography	Delivering, discussing and lively questioning	She takes oral tests.
2	2	=	Methods of research in tourist geography. and the relationship of tourism geography to other sciences	Delivering, discussing and lively questioning	She takes oral tests.
3	2	=	Tourism has its benefits ..and its importance..Impact	Delivering, discussing and lively questioning	She takes oral tests.
4	2	=	The aim of tourism ...Types	Delivering, discussing and lively questioning	She takes oral tests.
5	2	=	Stages of Tourism Development	Delivering, discussing and lively questioning	She takes oral tests.
6	2	=	Schools and tourism organizations	Delivering, discussing and lively questioning	She takes oral tests.
7	2	=	Environmental Impacts of Contemporary Tourism	Delivering, discussing and lively questioning	She takes oral tests.

8	2	=	Theories of the origin of tourism	Delivering, discussing and lively questioning	She takes oral tests.
9	2	=	First Month	———	Written test
10	2	=	tourism industry	Delivering, discussing and lively questioning	She takes oral tests.
11	2	=	Natural ingredients SiteThe climate	Delivering, discussing and lively questioning	She takes oral tests.
12	2	=	Natural ingredients Wildlife	Delivering, discussing and lively questioning	She takes oral tests.
13	2	=	Natural ingredients Water resources	Delivering, discussing and lively questioning	She takes oral tests.
14	2	=	Second month	———	Written test
15	2	=	Human resources Population volume ..Free time and holidays ..Income	Mapping	An oral exam
16	2	=	Mid-Year Exam Score	———	Written test
17	2	=	Spring break.	———	———
18	2	=		———	———
19	2	=	Human resources (Greeting	Delivering, discussing and lively	She takes oral tests.

			Structures...patrimony and tourism	questioning	
20	2	=	Human resources Political StabilityEconomic conditions and stages of growth)	Delivering, discussing and lively questioning	She takes oral tests.
21	2	=	Demand and supply. Elements of the tourist offer (natural and human)	Delivering, discussing and lively questioning	She takes oral tests.
22	2	=	Display Properties	Delivering, discussing and lively questioning	She takes oral tests.
23	2	=	Tourism in the world	Delivering, discussing and lively questioning	She takes oral tests.
24	2	=	Tourism Planning	Delivering, discussing and lively questioning	She takes oral tests.
25	2	=	Tourism and Global Transformations	Delivering, discussing and lively questioning	She takes oral tests.
26	2	=	First Month Exam Second Semester	_____	Editorial tests
27	2	=	Tourism Classification	Discussion and Live Interrogatio	She takes oral tests.

				n	
28	2	=	Tourist trip	Discussion and Live Interrogation	She takes oral tests.
29	2	=	Discussion of research on tourist countries	Discussion Diction and Live Interrogation	She takes oral tests.
30	2	=	complements, supplement, complement, completeness, sequelResearch Discussion	Discussion and Live Interrogation	She takes oral tests.
31	2	=	Month 2 Exam Chapter 2	_____	Written test
32	2	=	final examination	_____	Written test

11. Infrastructure	
1- Required textbooks	Introduction to Tourism Geography....Dr. Shawqi Al-Sayed Ahmed Dabi
2- Main References	Tourist geography and its applications to the Arab world ...Dr. Ibrahim Khalil Bazazo
أ) Recommended books and references (scientific journals,reports ,.....)	Tourist geography.. For Dr. Mohamed Sobhi Abdel Hakim
ب) Electronic references,websites ,.....	The Internet [23

12. Course Development Plan
1- Developing the course by adding about 20-30% new material by keeping pace with modern sources. 2- Renewing the curriculum vocabulary according to global developments and changes that have changed the tourist map of the world. 3- Delete some old numbers, ratios and statistics. 4- To be acquainted with modern tourism theories that are applied nowadays. 5- Developing countries in which tourism has developed. 6- Following up on events, developments, research and scientific reports that are concerned with tourism 7- Follow the latest developments in thetourism arena.

1. **Course Name**:
Applied climatology
2. **Course Code**:
3. **Semester/Year**:
The second phase / 2025–2026
4. **Date this description was prepared**:
2025 /10 /1
5. **Available attendance forms**:
in person
6. **Number of study hours (total) / number of units (total)**:
120/hour, 4/units
7. **Name of the course administrator (if more than one name is mentioned with the personal email)**
1– A.Dr.. Nasser Wali Freih Al–Rikabi **Email:nasirwali@uowasit.edu.iq**
8. **Course objectives**

Objectives of the study subject	It aims to know the impact of climatic elements and the phenomena accompanying them on humans and the environmental elements contained in the place in which they are located. Since science has become a small village, the impact of climatic elements in any place reflects their effects on any region in the world. This means that the applied aspects of climate It requires extensive knowledge and knowledge about the world through the exchange of information between departments and institutions concerned with studying past and present climatic characteristics to determine their impact, whether in the present or expected in the future. In addition to using the latest methods to measure the impact of climatic elements on human health, comfort, and activity. Application methods for calculating some elements such as drought and evaporation, as well as according to the water budget

9. Teaching and learning strategies

· Interactive lectures and group discussions. · Reports and drawings for climate lectures · Using modern climate references and sources to enrich the lecture. · Using the method of detailed explanation of the lecture topics. · Use of maps. · Using the lecture presentation method using a data show device · Using the practical and applied aspect in measuring some climate elements and phenomena, as well as measuring the impact of climate on human comfort, health, and activity. · Focus on studying climate change, its causes, effects, and methods of adaptation	

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes		the week
Class performance and exams	Lecture and brainstorming	The development of climatology and applied climate, the most important axes of its study, and the latest studies in this aspect	Informing students about the development of climate science, its most important branches, and the development of	4	October the first1

			applied climate studies		
Class performance and exams	Lecture and discussion	Climate and natural environment Climate and terrain From the effect of climatic elements on the surface and the resulting shapes	Focusing on the impact of climate on nature, represented by the effect of heat, precipitation, wind, and snow on the shapes of the Earth's surface.	4	October the first2
Class performance and exams	Lecture and brainstorming	The effect of climatic elements on soil and water The effect of climate on soil formation The effect of climate on the variation in soil distribution The impact of climate on the forms and characteristics of water resources	Informing students about how climatic elements affect soil diversity Surface and groundwater resources	4	October the first3

Class performance and exams	Lecture and brainstorming	The effect of climate on natural plants Vegetation varies according to climatic conditions Climatic regions and their compatibility with vegetation regions	Informing students about the importance of studying the impact of climate on plant life	4	October the first4
Class performance, exams and field visits	Lecture and discussion	Measuring climate elements directly through climate stations Measuring devices Development of surface and atmospheric measuring instruments	Focusing on climate stations, measuring devices, and developments in monitoring and controlling climate elements	4	October the second1

Class performance and exams **Assigning students to calculate evaporation for stations in Iraq**	**Standard method** Practical application	**Methods of measuring some climatic elements** **Methods for measuring evaporation** **The importance of its study, its types, causes, and the most important rates of its measurement**	**Explaining the importance of studying evaporation, its effects, and its types**	**4**	**October the second2**
Class performance and exams	**Standard method** **Practical application**	**Drought: its types, causes, forms, effects, and methods of measuring it**	**Informing students of the importance of studying the phenomenon of drought and its types**	**4**	**October the second3**
Class performance and exams	**Standard method** Practical application	**Radiation measurement** The most important equations for measuring solar radiation	**Focus on the importance of solar radiation, its impact, and daily, seasonal, and annual variation**	**4**	**October the second4**

Paper exam	theoretical	First month exam, first semester		4	Canon the first1
Class performance and exams	Standard method practical application	Climate water budget Budget elements Calculation methods	Introduction to the budget and the importance of studying it	4	Canon the first2
Class performance and exams	Lecture and discussion	Climatic classifications	Identify the most important climate classifications	4	Canon the first3
Class performance and exams	Lecture and discussion	Köppen classification	Learn about Copen codes Methods of classification according to climatic regions	4	Canon the first4
Class performance and exams	Lecture and brainstorming	Geographic distribution of Köppen climatic regions	Identify the most important climatic regions and their geographical	4	Canon the second1

			distribution		
Class performance and exams	Lecture and application	Modern classifications Thonthwaite classification	Identify the most important Thonthwaite climate symbols	4	Canon the second2
Class performance and exams	Lecture and application	Holder's classification	Learn how to use classification	4	Canon the second3
Class performance and exams	Lecture and application	Kosen classification	Learn about the use of classification	4	Canon the second4
Paper exam	theoretical	Exam of the second month of the first semester	Essay, objective and applied questions	4	February1
		Spring break			February2
Class	Lecture	Human	Identify the impact of climate	4	March1

performance and exams	and application	classifications Climate and human comfort	on human health, comfort, and activity		
Class performance and exams	Lecture and application	Climate and human activity	Identify the impact of climate on agriculture, industry, tourism, transportation, trade, and military operations	4	March2
Class performance and exams	Lecture and brainstorming	Climate, agriculture and industry The effect of climatic elements on plant life, as well as the effect of elements on industries	Identify the impact of climate, crop cultivation, and the establishment of industry	4	March3
Class performance and exams	Lecture and brainstorming	Climate, trade and transport. The impact of climate on transport routes, vehicles, sea and air transport	Explaining the role of elements in the movement of trade and transportation	4	March4
Class performance and exams	Lecture and brainstorm	Climate, tourism and military operations The most important tourism climatic elements and how climatic elements affect	Identify and explain the impact of climate on the tourism industry and the factors behind its development	4	April1

	ing	tourism			
Class performance and exams	Lecture and application	Climate and health The effect of climatic elements on the environment of diseases Incidence varies according to the seasons	Explaining the relationship of disease incidence and its relationship to climatic elements	4	April2
Paper exam	theoretical	Exam of the first month of the second semester		4	April3
Class performance and exams	Lecture and application	Climate and architecture Building design and climate	Explaining the impact of climate on the design of buildings in different environments	4	April4
Class performance and exams	Lecture and brainstorming	Construction direction Building materials Window capacity	Explaining the effect of climatic elements through the direction of construction, the size of windows, and building	4	Mays1

			materials		
Class performance and exams	**Lecture and application**	Climate, alternative energy and energy consumption	Learn about alternative energy sources	**4**	**Mays2**
Class performance and exams	**Lecture and application**	Solar radiation energy, wind energy, and tidal energy	Learn about solar radiation and wind energy	**4**	**Mays3**
Class performance and exams	**Lecture and application**	Calculate the need for heating and cooling	Learn about the variation in energy consumption and methods for calculating it	**4**	**Mays4**
Paper exam	**theoretical**	**Exam of the second month of the second semester**			**May 1**
		End of year exams			**May 2**

11. Course evaluation:

The score is distributed out of 100 as follows:

1– The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.

2– The final written exam score is (50) points.

12. Learning and teaching resources:

Required textbooks (methodology, if any)	
Main references (if any)	**1: Dr. Qusay Abdel Majeed Al–Samarrai and Adel Saeed Al–Rawi, Applied Climatology.** **2:D. Ali Saheb Al–Moussawi and Abdul Hassan Madfoun, Applied Climatology, 2011.** **3:D. Fadel Al–Hassani and Mahdi Al–Sahhaf, Basics of Applied Climatology.** **4: Dr. Qusay Abdel Majeed Al–Samarrai, Climate and Climatic Regions.** **Ali Hassan Musa, applied climatology** **Ali Ghanem, applied climatology**

Bioclimate d. Ali Hassan Musa **Climatic regions d. Ali Hussein Al Shalash** **Ali Hassan Musa's tourist climate**	**Recommended supporting books and references (scientific journals, reports, ….).**
Journal of the Geographical Society **Analytical climate** **Working climate**	**Electronic references, website**

1. Course Name:
Geographical research methods
2. Course Code:
3. Semester/Year:
The third class / 2025–2026
4. Date this description was prepared:
2025 /10 /1
5. Available attendance forms:
in person
6. Number of study hours (total) / number of units (total):
64/hour, 2/units
7. Name of the course administrator (if more than one name is mentioned with the personal email)
1– Dr. Amenah Hassan Niyazi **Email:** aniyazi@uowasit.edu.iq
8. Course objectives

Objectives of the study subject	Preparing researchers familiar with scientific spatial research techniques that enable them to contribute to solving community problems, which gives the character of applied work to their work, which is done through planning. Application methods for calculating some elements such as drought and evaporation, as well as according to the water budget

9. Teaching and learning strategies

- Interactive lectures and group discussions.
- Reports and daily tests
- Using references and sources
- Modern to enrich the lecture.
- Use the method of detailed explanation of the lecture topics.
- Using maps.
- Using the lecture presentation method using a projector (data show)

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	week
Class performance and exams	Lecture and brainstorming	Scientific framework for scientific research	Students' understanding of the concept of scientific research	2	October 1

Class performance and exams	Lecture and discussion	Geographical research methods	Teaching students about geographical research methods	2	October 2
Class performance and exams	Lecture and brainstorming	The concept of geographical research	Students' awareness of the concept of geographical research	2	October 3
Class performance and exams	Lecture and brainstorming	Identify geographic problems and hypotheses	Informing students about the importance of defining the geographical problem and hypothesis	2	October 4
paper exam	Theoretical	First month/first semester exam	Essay questions	2	November1
Class performance and exams	Lecture and discussion	Design the research framework	Teaching students how to design a research framework	2	November2

Class performance and exams	Lecture and discussion	Research action plan	Teaching students to write a research plan	2	November3
Class performance and exams	Lecture and discussion	Organizing the research schedule	Students understand organizing a timetable	2	November4
Class performance and exams	Lecture and discussion	Data collection	Teach students the process of collecting data	2	December1
Class performance and exams	Lecture and discussion	Sources, references, and how to write them down	Students' understanding of how to cite and use sources	2	December2
Class performance and exams	Lecture and discussion	plagiarism	Students avoid plagiarism	2	December3
Class performance and exams	Lecture and discussion	Field techniques: questionnaire and interview	Teaching students about field techniques	2	December4
Class performanc	Lecture and brainstormi	Internet technologies,	Using modern technologies in	2	January1

e and exams	ng	geographic information systems, remote sensing, and geographic positioning systems	geographical research		
paper exam	Theoretical	Second month/first semester exam	Essay and objective questions	2	January2
		Spring break		2	January3
		Spring break		2	January4
Class performance and exams	Lecture and brainstorming	Statistical analysis in geographical research	Teaching students statistical analysis	2	February 1
Class performance and exams	Lecture and discussion	Data Visualization	How does the student represent ?the data	2	February 2
Class performance and exams	Lecture and discussion	Using information systems in data analysis	How does the student analyze ?the data	2	February 3
Class	Lecture and	Producing	How to learn to	2	February

performance and exams	discussion	maps using information systems	produce results		4
Class performance and exams	Lecture and application	Data calendar	Teaching students the process of evaluating data	2	March1
Class performance and exams	Lecture and application	Models and computers	Students' understanding of models	2	March2
Class performance and exams	Lecture and discussion	Conclusion and prediction	Enhancing the concept of prediction and inference to students	2	March3
paper exam	Theoretical	Exam of the first month of the second semester	Essay and objective questions	2	March4
Class performance and exams	Lecture and brainstorming	Writing and editing scientific research	Teaching students how to write research	2	April1

Class performance and exams	Lecture and brainstorming	Organizing the research and its contents	Teaching students how to organize research	2	April2
Paper exam	Lecture and application	Theoretical framework for the research	How does the student write the theoretical framework	2	April3
Class performance and exams	Lecture and application	Research evaluation criteria	Student understanding of evaluation criteria	2	April4
Class performance and exams	Lecture and brainstorming	Originality, innovation and creativity	The student achieves originality and creativity in scientific research	2	Mays1
Paper exam	theoretical	Second month/second semester exam	Essay and objective questions	2	Mays2
		final exams		2	Mays3
		final exams		2	Mays4
11. Course evaluation:					

The score is distributed out of 100 as follows:

1– The annual pursuit grade is (50) grades, divided into (10) grades for attendance, participation, and activities, and (15) grades for monthly exams.

2– The final written exam score is (50) points.

12. Learning and teaching resources:

Required textbooks (methodology, if any)	**none**
Main references (if any)	Dr. Safouh Khair, Geographical Research, Its Methods and Methods, Riyadh, 1990. –1 Methods of geographical research, Abdul Razzaq Al-Butaihi, Mosul, 1988. –2
Recommended supporting books and references (scientific journals, reports).	**Khalaf Hassan Al-Dulaimi, Modern Trends in Geographical Scientific Research, Amman, 2010** –1
Electronic references, website	**none**

Course Description Form

22. Course Name:
Thematic maps
23. Course Code: /
/
24. Semester / Year:
2026-2025
25. Description Preparation Date:
1-10-2025
26.Available Attendance Forms:
Weekly
27.Number of Credit Hours (Total) / Number of Units (Total)
60 hours

28. Course administrator's name (mention all, if more than one name)	
Name : Assistant. Lecturer Ameena Hashim Abduljaleel Email: ameena@uowasit.edu.iq	
29. Course Objectives	
Course Objectives	4. The student should know what maps are and their types 5. the student acquires information about the skills and reading of the thematic map. 6. the student understands how to make international maps individually 7. the student understands the areas of regional and international geography 8. The student learns how to interpret the thematic map. 9. The student should apply the applications of distribution maps and the skills reading them. 10. The student should analyze and interpret a satellite visual or aerial photogra and write the results or draw a map from them 11. The student draws a digital map 12. The student monitors his location using GPS
30. Teaching and Learning Strategies	
Strategy	- Method of Lecture, discussion and brainstorm - Teaching methods include the use of educational technology - Encouraging students to self-learn

31. Course Structure : 1st semester					
Week	**Hours**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	**2**	**Knowledge and understanding Classification of maps and their types**	**Classification of maps and their types**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
2	**2**	**Knowledge and understanding The concept of thematic maps and their content**	**The concept of thematic maps and their content**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
3	**2**	**Knowledge and understanding Definition of thematic map, classification of thematic map**	**Definition of thematic map, classification of thematic map**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
4	**2**	**Knowledge and understanding Steps for displaying public content and methods for displaying special content**	**Steps for displaying public content and methods for displaying special content**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
5	**2**	**Knowledge and understanding Methods of displaying phenomena on thematic maps**	**Methods of displaying phenomena on thematic maps**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
6	**2**	**Knowledge and understanding**	**Qualitative methods (non-quantitative**	**Method of Lecture,**	**QUIZ. and EXAM**

		Qualitative methods (non-quantitative (qualitative) cadastral maps)	**(qualitative) cadastral maps)**	**discussion and brainstorm**	
7	**2**	**Knowledge and understanding Types of non-quantitative cadastral maps**	**Types of non-quantitative cadastral maps**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
8	**2**	**Knowledge and understanding How to create non-quantitative cadastral maps**	**How to create non-quantitative cadastral maps**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
9	**2**	**Knowledge and understanding Quantitative methods**	**Quantitative methods**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
10	**2**	**Knowledge and understanding Types of quantitative thematic maps (dot maps, steps for preparing dot maps)**	**Types of quantitative thematic maps (dot maps, steps for preparing dot maps)**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
11	**2**	**Knowledge and understanding Choropleth cadastral maps**	**Choropleth cadastral maps**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**
12	**2**	**Knowledge and understanding Maps of isolines**	**Maps of Isopleths**	**Method of Lecture, discussion and brainstorm**	**QUIZ. and EXAM**

13	2	Knowledge and understanding Methods for creating Isopleths maps	Methods for creating Isopleths maps	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
14	2	Charts (definition of proportional symbols, line symbols, bar symbols, or columns)	Charts (definition of proportional symbols, line symbols, bar symbols, or columns)	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
15		Exam	Exam		

Course Structure : 2nd Semester

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Knowledge and understanding Bar conditions on chartson charts	Bar conditions on charts	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
2	2	Knowledge and understanding Cadastral symbols, types of cadastral symbols	Cadastral symbols, types of cadastral symbols	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
3	2	Knowledge and understanding Methods for calculating the dimensions of cadastral symbols	Methods for calculating the dimensions of cadastral symbols	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
4	2	Knowledge and understanding	Conditions for cadastral symbols on	Method of Lecture,	QUIZ. and EXAM

		Conditions for cadastral symbols on maps	maps	discussion and brainstorm	
5	2	Knowledge and understanding Volumetric symbols	Volumetric symbols	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
6	2	Knowledge and understanding Evaluation of the relative symbols method	Evaluation of the relative symbols method	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
7	2	Knowledge and understanding Areas of application of relative symbols	Areas of application of relative symbols	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
8	2	Knowledge and understanding Chart maps	Chart maps	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
9	2	Knowledge and understanding Flowcharts (motion maps)	Flowline (motion maps)	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
10	2	Knowledge and understanding Evaluation of motion maps	Evaluation of motion maps	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
11	2	Knowledge and understanding Classification of thematic maps based on the	Classification of thematic maps based on the symbols used to represent	Method of Lecture, discussion and	QUIZ. and EXAM

		symbols used to represent geographical phenomena	geographical phenomena	brainstorm	
12	2	Knowledge and understanding Thematic maps in geographic information systems programs	Thematic maps in geographic information systems programs	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
13	2	Knowledge and understanding Elements of thematic map content in a geographic information systems environment	Elements of thematic map content in a geographic information systems environment	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
14	2	Knowledge and understanding Methods of representing geographical phenomena on thematic maps	Methods of representing geographical phenomena on thematic maps	Method of Lecture, discussion and brainstorm	QUIZ. and EXAM
15		Exam	Exam		

32. Course Evaluation

9. Daily attendance.
10. Daily Quiz
11. Monthly Exam
12. Final Exam
13. grades for participation to solve questions during the lecture

14. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Thematic Maps/Dr. Falah Shaker Aswad 2. Human Distribution Maps: their concept an methods for creating them/Dr. Nasser bin

	Mohammed bin Salma 3. Human Distribution Maps, foundations and applications/Dr. Fayez Al-Issawi 4. Introduction to Digital Maps / Dr. Juma Muhammad Daoud 5. Introduction to the Global Positioning Syste GPS/Dr. Juma Muhammad Daoud 6. Remote sensing basics and applications / Na Subhi Al-Daghistani 7. Visible Remote Sensing Data Collection and Analysis/Mohamed Abdullah Al-Saleh 8. Remote Sensing and its Applications in spat studies / Khaled Muhammad Al-Anqari
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course description form

1. **Course Name**:
Geographic thought
2. **Course Code**:
3. **Semester/Year**:
The 4th Class / 2025–2026
4. **Date this description was prepared**:
2025 /10 /1
5. **Available attendance forms**:
In person
6. **Number of study hours (total) / number of units (total)**:
64/hours 2/units
7. **Name of the course administrator (if more than one name is mentioned with the personal email)**
1– Dr. Amenah Hassan Niyazi Email: aniyazi@uowasit.edu.iq
8. **Course objectives**

The course aim to introducing students to the nature of geographical thought and the importance of studying it to know the present in the science of geography.	**Objectives of the study subject**

9. Teaching and learning strategies

- **Interactive lectures and group discussions**.
- **Reports and daily tests**
- **Using modern references and sources**.
- **Use the method of detailed explanation of the lecture topics**.
- **Using maps**.
- **Using the lecture presentation method using a projector** (**data show**)

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes	hours	the week
Class performance and	Lecture and brainstorming	The concept of geographical thought	Students' understanding of the concept of	2	October 1

exams			geographical thought		
Class performance and exams	Lecture and discussion	The nature of geographical knowledge and its relationship with other sciences	Introducing students to geography and its relationship to other sciences	2	October 2
Class performance and exams	Lecture and brainstorming	Branches of natural and human geography	The student's understanding of the branches of geography	2	October 3
Class performance and exams	Lecture and brainstorming	Geographical thought in antiquity	Introducing ancient civilizations and their importance in the development of geography	2	October 4
Paper exam	theoretical	First month/first semester exam	Essay and objective questions	2	November 1
Class performance and exams	Lecture and discussion	Arab geographical thought	Introduction to Arab geographical thought	2	November 2

Class performance and exams	Lecture and discussion	Arab geographical thought before Islam	The student's understanding of pre-Islamic thought	2	November 3
Class performance and exams	Lecture and discussion	Arab-Islamic geographical thought	The student's understanding of Islamic geographical thought	2	November 4
Class performance and exams	Lecture and discussion	Geographical thought until the end of the Ottoman era	Clarifying the events until the end of the Ottoman era	2	December1
Class performance and exams	Lecture and discussion	Fields of Arab geography	Introducing the student to the fields of Arabic geography	2	December2
Class performance and exams	Lecture and discussion	Mathematical and astronomical geography	Know the concept of astronomical geography	2	December3
Class performance and exams	Lecture and discussion	Descriptive, travelogue and regional geography	Knowledge of the concept of descriptive geography and travel	2	December4
Class performan	Lecture and brainstormi	The emergence of	Learn about cartography in	2	January1

ce and exams	ng	cartography in Arab geography	Arabic geography		
Paper exam	theoretical	Second month/first semester exam	Essay and objective questions	2	January2
		Spring break		2	January3
		Spring break		2	January4
Class performance and exams	Lecture and brainstorming	Geographical discoveries	Know what geographical discoveries are	2	February 1
Class performance and exams	Lecture and discussion	Modern geographical discoveries	Why modern geographical discoveries	2	February 2
		Student application		2	February 3
		Student application		2	February 4
		Student application		2	March1

		Student application		2	March2
		Student application		2	March3
Class performance and exams	Lecture and brainstorming	Discovering the interior of continents	How was the interior of the continents discovered	2	March4
Class performance and exams	Lecture and brainstorming	modern geographical thought	What is meant by modern geographical thought	2	April1
Class performance and exams	Lecture and brainstorming	Modern geographical schools German and French	Introducing the importance of geographical schools	2	April2
Class performance and exams	Lecture and discussion	The English and American Geographic School	Introducing the importance of geographical schools	2	April3
Class performance and exams	Lecture and discussion	Arab Geographic School	Learn about the emergence of the Arab geographical school	2	April4

Class performance and exams	Lecture and brainstorming	modern geographical concepts	Explaining modern geography concepts to students	2	May1
Paper exam	theoretical	Monthly exam/second semester	Essay and objective questions	2	May2
		Final exams		2	May3
		Final exams		2	May4

11. Course evaluation:

The score is distributed out of 100 as follows:

1– The annual pursuit grade is (50) grades, divided into (10) grades for attendance, participation, and activities, and (15) grades for monthly exams.

2–The monthly exam after application (20) grades and the daily of second semester (5) grades

3– The final written exam score is (50) points.

12. Learning and teaching resources:

Abd Khalil Fadil, Ibrahim Al-Mashhadani, Geographical Thought, Baghdad, 1990	**Required textbooks (methodology, if any)**

Dr. Ali Muhammad Al-Mayah, Shaker Khasbak, geographical thought, its development and research methods, Baghdad, 1983	**Main references (if any)**
None	**Recommended supporting books and references (scientific journals, reports).**
None	**Electronic references, website**

Course Description Form

33. Course Name:	
Dry regions	
34. Course Code:	
35. Semester / Year:	
annual	
36. Description Preparation Date:	
1 / 10 / 2025	
37.Available Attendance Forms:	
immanence	
38.Number of Credit Hours (Total) / Number of Units (Total)	
60 hours annually. 2 hours per week	
39. Course administrator's name (mention all, if more than one name)	
Name: Ali Radhi Muhaisen Email: alir903@uowasit.edu.iq	
40. Course Objectives	
• **Definition of studentsIn dry regions And the reasons for its emergence** • **Identifying dry lands in the world in general, distributing them on various continents, and studying dry lands in the Arab world in particular.** • **Recognize the importance Climate characteristics in dry regions**	

• **Introducing students to most of the problems facing dry areas.** • **Explaining the most important ways in which living organisms adapt in general to face the problem of water scarcity in dry regions.** • **Identifying the most important solutions for water uses that are characterized by their scarcity in dry areas.**	

41. Teaching and Learning Strategies

Strategy	1. **Educational strategy, collaborative concept planning.** 2. **Brainstorming education strategy.** 3. **Education Strategy Notes Series .**

42. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Teaching students the importance of dry regions and the reasons for studying them, as well as their classification.	The importance of dry regions	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
2	2	Introducing students to the concept of drought and its different types	Definition of drought and dry regions	PowerPoint Lecture	test (oral-)
3	2	Introducing students to the causes of drought from a natural and human perspective	Causes of dehydration	PowerPoint Lecture	General questions and discussion
4	2	Definition of studentsThe geographical distribution of dry	Distribution of the driest regions in the world	theoretical, theoretic, abstract, notional, perspective, paper,	General questions and discussion

		regions around the world		academic	
5	2	Definition of studentsThe geographical distribution of the dry regions in the Arab world.	Dry areas in the Arab world.	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
6	2	Introducing students to the importance and impact of climate in dry regions	The importance of climate in dry regions	theoretical, theoretic, abstract, notional, perspective, paper, academic	A written test
7	2	Introducing students to climatic characteristics and their importance in dry regions	Climatic characteristics of dry regions	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
8	2	Introducing students to the importance of landforms in dry regions	The geomorphological importance of drylands	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
9	2	Introducing students to the types of landforms prevailing in dry regions	The diversity of desert land forms	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
10	2	Introducing students to the most important deterministic and sedimentation processes	Geomorphological processes prevailing in dry regions	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion
11	2	Teaching students the concept of soil in dry regions in terms of its types and distribution.	The concept of soil, characteristics of desert soils	theoretical, theoretic, abstract, notional, perspective, paper, academic	General questions and discussion

12	2	Introducing students to the most importantProblems facing soils in dry regions and how to reduce them and mitigate their effects	Dry soil problems	PowerPoint Lecture	test (oral-)
13	2	Introducing students to the effects of salinization on soil and water	Soil and water salinity challenges	PowerPoint Lecture	test (oral-)
14	2	Definition of studentsTypes and shapes of natural plants and their distributionIn dry regions	Natural plant in dry regions	PowerPoint Lecture	test (oral-)
15	2	Introducing students to the concept of water resources and their importance to people ir dry regions	The importance of water resources in dry regions	PowerPoint Lecture	A written test
16	2	Introducing students to the forms and types of water resources	Diversity of water resources	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
17	2	Teaching students the most important uses of water resources in dry regions	Water uses in drylands	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
18	2	Teaching students the most important modern methods in maintaining, developing and sustaining water resources	Modern methods in developing water resources	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)

19	2	Introducing students to agriculture and its characteristics in dry regions	Agricultural resources in drylands	PowerPoint Lecture	test (oral-)
20	2	Introducing students to the industry and its characteristics in dry regions	Industrial production in dry regions	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
21	2	Introducing students to the most important environmental problems and challenges in dry regions	Environmental problems and dangers in dry regions	theoretical, theoretic, abstract, notional, perspective, paper,	test (oral-)
22	2	Definition of studentsThe concept of desertification and its types	The concept of desertification and its types	theoretical, theoretic, abstract, notional, perspective, paper, academic	A written test
23	2	Definition of studentsCauses of desertification, both natural and human	Causes of desertification	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
24	2	Teaching studentsOn the most important modern methods used to reduce and mitigate the problem of desertification	Methods of dealing with desertification	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
25	2	Introducing students to the conceptDroughtAnd its types	Drought problem	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
26	2	Definition of studentsThe causes of soil erosion and its	Soil erosion	theoretical, theoretic, abstract, notional, perspective, paper,	General Discussion and Questions

		environmental effects		academic	
27	2	Definition of studentsSand and dust storms, their causes, and their effects on the population	Sand and dust storms	theoretical, theoretic, abstract, notional, perspective, paper, academic	General Discussion and Questions
28	2	Definition of studentsTypes of environmental pollution and how to reduce it	Environmental pollution	theoretical, theoretic, abstract, notional, perspective, paper, academic	A written test
29	2	Definition of studentsFlood risks in dry regions	Floods	theoretical, theoretic, abstract, notional, perspective, paper, academic	test (oral-)
30	2	Definition of studentsThe most important natural resources and their development potential	Development of natural resources in dry regions	PowerPoint Lecture	test (oral-)

43. Course Evaluation

Distribution is as follows: 25 marks for monthly and daily exams for the first semester. 25 marks for monthly and daily exams for the second semester. 50 marks for final exams

44. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Hassan Ramadan Salama, Geography of Dry Regions, 1st edition, Faculty of Arts, University of Jordan, 2010.
Main references (sources)	Qusay Abdel Majeed Al-Samarrai, Abdel Makhwar Najm Al-Rihani, Geography of Dry Lands, 1990.
Recommended books and references (scientific journals, reports…)	• Muhammad Mahmoud Muhammadin, Dry Regions and the Problem of Desertification, Dar Al-Khereiji, Egypt, 2013. • Mansour Abu Ali, Geography of Dry Areas, Dar Wael for Printing, Publishing and Distribution, 2010. • Kenneth Waltoun, Dry Lands, translated by Ali Abdel

	Wahab Shaheen, Manshaet Al Maaref, Alexandria, Egypt, 1990.
Electronic References, Websites	➢ (iasj) Iraqi Academic Journals Website. ➢ Google Scholar ➢ Research Gate ➢ Various AI Sites

45. Course Name:
Hydrology
46. Course Code:
47. Semester / Year:
annual
48. Description Preparation Date:
1 / 10 / 2025
49.Available Attendance Forms:
immanence
50.Number of Credit Hours (Total) / Number of Units (Total)
60 hours annually. 2 hours per week
51. Course administrator's name (mention all, if more than one name)
Name: Prof. Dr. Hussein Karim Hamad Al-Saadi **Email: husainwadi@uowasit.edu.iq**

52. Course Objectives	
1) Enabling students to use scientific methods 2) Recognizing the importance of studying hydrology 3) Educating students about problems related to water 4) Developing cognitive skills and developing water sense 5) Developing students' ability to monitor alternative water sources 6) Introducing students to the future effects of water shortages.	

1. **Course Name**:
Geographic techniques
2. **Course Code**:
3. **Semester/Year**:
The second phase / 2025–2026

4. **Date this description was prepared**:
2025 /10 /1
5. **Available attendance forms**:
in person
6. **Number of study hours (total) / number of units (total)**:
120/hour, 4/units
7. **Name of the course administrator (if more than one name is mentioned with the personal email)**
1– M.M. Aseel Jassim Mohammed **Email: aseeljassim@uowasit.edu.iq**
8. **Course objectives**

Objectives of the study subject	**Introducing students to the basic concepts of geographical techniques. Highlighting the components of digital maps, with a focus on remote sensing systems (Rs) and the (Arc map10.8) program. Enabling students to deal with digital maps independently and developing students' skills by designing and implementing an integrated study project and mapping**

9. **Teaching and learning strategies**

Using the direct application method by the teacher on the blackboard Involve the student to solve some applications related to the paragraph -2 • In the practical aspect, the exercises are re-executed by the teacher and teaching assistant -3 • The student is asked to carry out the exercise under the direct supervision of the teacher and teaching assistant -4 • The student's work is evaluated and detailed notes are made on his work so that he can avoid it in the future • Evaluation methods • Conducting exams for theoretical and practical subjects •	

10. Course structure

Evaluation method	Learning method	Name of the unit or topic	Required learning outcomes		the week
Class performance and exams	Lecture and brainstorming	Informing students about digital maps, digital maps	Informing students about digital maps, digital maps	4	October the first1
Class performance and	Lecture and discussion	Geographic techniques between traditional and digital methods, components of digital maps and software	Geographic techniques between traditional and digital methods, components of digital maps and software	4	October the first2

exams					
Class performance and exams	Lecture and brainstorming	Digital map data sources	Introducing students to the comprehensive station, geographic techniques, and data sources	4	October the first3
Class performance and exams	Lecture and brainstorming		Informing students about the importance of traditional and digital maps	4	October the first4
Class performance, exams and field visits	Lecture and discussion	Traditional maps and digital maps	Informing students about the importance of traditional and digital maps	4	October the second1

Class performance and exams	Standard method Practical application	Digital elevation data sources are important	One stop station	4	October the second2
Class performance and exams	Standard method Practical application	A brief history of GPS	Informing students of the global positioning system	4	October the second3
Class performance and exams	Standard method Practical application	Satellites Land monitoring stations Users	Positioning system components	4	October the second4
Paper exam	theoretical	Exams for the first month exam, first semester	Exams for the first month exam, first semester	4	Canon the first1
Class performan	Standard method	Satellites	The importance of GPS	4	Canon the first2

ce and exams	practical application				
Class performance and exams	Lecture and discussion	Land monitoring stations	Practical applications	4	Canon the first3
Class performance and exams	Lecture and discussion	Users	Types of monitoring	4	Canon the first4
Class performance and exams	Lecture and brainstorming	First month exam, first semester	Remote Sensing	4	Canon the second1
Class performance and exams	Lecture and application	Its importance, applications and uses	Its components	4	Canon the second2
Class performance and exams	Lecture and application	Methods and types of monitoring	Programs	4	Canon the second3

Class performance and exams	Lecture and application	Its uses	Essay, objective and applied questions	4	Canon the second4
Paper exam	theoretical	Constant monitoring	Information sources	4	February1
		Mobile monitoring	Types of remote sensing		February2
Class performance and exams	Lecture and application	Natural studies	Category	4	March1
Class performance and exams	Lecture and application	Human studies	Processing	4	March2
Class performance and exams	Lecture and brainstorming	Types of data sources: lecture and application, class performance and exams	Practical software applications	4	March3
Class performance and	Lecture and brainstorming	Types of data for remote sensing and their importance. Lecture and application. Class	Types of applications	4	March4

exams		performance and exams			
Class performance and exams	Lecture and brainstorming	Visual classification	Geographic information systems	4	April1
Class performance and exams	Lecture and application	Automated classification, lectures, brainstorming, classroom performance, and exams	Information system components	4	April2
Paper exam	theoretical	Engineering processors	The importance of information systems	4	April3
Class performance and exams	Lecture and application	Rhodometric processors	Practical lessons	4	April4
Class performance and exams	Lecture and brainstorming	Material components	practical training	4	Mays1
Class performan	Lecture and	Lecture and brainstorming software	practical training	4	Mays2

ce and exams	application	components, classroom performance and exams			
Class performance and exams	Lecture and application	The most important applications of geographic information systems: lecture and application, classroom performance and exams	practical training	4	Mays3
Class performance and exams	Lecture and application	Use practical applications of GIS programs for lecture and application, classroom performance and exams	practical training	4	Mays4
Paper exam	theoretical	Exam of the second month of the second semester	Exam of the second month of the second semester		May 1
		End of year exams	End of year exams		May 2

11. Course evaluation:

The score is distributed out of 100 as follows:

1– The annual pursuit grade is (50) grades, divided into (20) grades for attendance, participation, and activities, and (30) grades for monthly exams.

2– The final written exam score is (50) points.

12. Learning and teaching resources:	
Required textbooks (methodology, if any)	**A systematic book on geographic information systems techniques** **Geographic Information Systems book (Daoud Jumaa)** **Remote Sensing Book (Khamis Al–Baroudi)** **US Geological Survey website** **Geographic Information Systems Library website**

11-Course evaluation .	
:The score distribution out of 100 is as follows .marks for monthly and daily exams for the first semester 25 .marks for monthly and daily exams for the second semester 25 .marks for final exams 50	
12-Learning and teaching resources	
(Required textbooks (methodology, if any	/
	1- Biogeography and Soils, Hassan Abu Sammour 2- Geography of the Biosphere, Plants and Animals, Abdel Abbas Fadhih Al-Ghurairi and Saadia Akul Al-Salhi 3. Biogeography, Naeem Al-Zahir 4- Foundations of Biogeography: Dr. Zein Al-Din Abdel Maqsoud
Recommended supporting books and references (scientific journals, (....reports	/
Electronic references, Internet sites	- Internet site and virtual library - Research Gate - Various artificial intelligence websites - Subject website