

## Course Description Form

<b>1. Course Name:</b>					
Local climate					
<b>2. Course Code:</b>					
Non-coding					
<b>3. Semester / Year:</b>					
Third , First semester (2024-2025)					
<b>4. Description Preparation Date:</b>					
23\09\2024					
<b>5. Available Attendance Forms:</b>					
Full time attendance					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
30					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Khamis Daham Muslih Email: <a href="mailto:khamies76@coart.uobaghdad.edu.iq">khamies76@coart.uobaghdad.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>	1- Define local climatology and discuss why it is important. 2. Describe the determinants, strengths and weaknesses of commonly used climate datasets (e.g., observational station data, climate reanalysis data, radar data) 3- Describe the strengths and weaknesses of the means of measurement and statistical methods used in the local climate, which are commonly applied such as correlation, regression and others.				
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>	o Theoretical and practical lectures. o Learning with peers. o Group discussions o Feedback and reflection. o Diversity of evaluation. o Use of technology				
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Researchers	Definition of local climate (its origin and development)	Discussion	Exams
2	2	Researchers	Climatic factors affecting the local climate	Discussion	Exams
3	2	Researchers	Thermal properties and their local variations	Discussion	Exams
4	2	Researchers	Atmospheric pressure and its local variations	Discussion	Exams
5	2	Researchers	Wind types and local differences	Discussion	Exams
6	2	Researchers	Humidity types and local variations	Discussion	Exams
7 + 8	2	Researchers	City climate as a model of local climate	Discussion	Exams

9+10	2	Researchers	Forest climate as a model of local climate	Discussion	Exams
11 +12	2	Researchers	Mountain climate as a model of local climate	Discussion	Exams
13+14	2	Researchers	The climate of different fields as a model of the local climate	Discussion	Exams
15	2	Researchers	Monthly exam	discussion	Exams

### 11.Course Evaluation

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

First month exam (theoretical)	Second month exam (theoretical)	Daily assignments	Final exam	Total
15	15	10	60	100 %

### 12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	<p>Ahmed Saeed Habib, Fadel Baqir Al-Hassani, Local Climate, Baghdad 1982</p> <ul style="list-style-type: none"> <li>. Ali Hassan Musa, Al-Manakh Al-Asghari, Damascus House for Printing, Publishing and Distribution, 1991.</li> <li>. Salam Hatef Al-Jubouri, Detailed Climatology, Delair Printing and Publishing Office, Baghdad, 2021.</li> </ul>
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Internet sites specialized in the climate and its problems.

## Course Description Form

1. Course Name:					
Ecology					
2. Course Code:					
Non-coding					
3. Semester / Year:					
Third , second semester (2024-2025)					
4. Description Preparation Date:					
23\09\2024					
5. Available Attendance Forms:					
Full time attendance					
6. Number of Credit Hours (Total) / Number of Units (Total)					
30					
7. Course administrator's name (mention all, if more than one name)					
Name: Khamis Daham Muslih Email: <a href="mailto:khamies76@coart.uobaghdad.edu.iq">khamies76@coart.uobaghdad.edu.iq</a>					
8. Course Objectives					
Course Objectives		<ul style="list-style-type: none"> <li>• Define ecology and discuss why it is important.</li> <li>• Identify the main environmental concepts and try to investigate the differences between them.</li> <li>• Describe the limitations, strengths and weaknesses of ecosystems.</li> <li>• Discussing the most important problems facing the environment</li> </ul>			
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"> <li>o Theoretical and practical lectures.</li> <li>o Learning with peers.</li> <li>o Group discussions</li> <li>o Feedback and reflection.</li> <li>o Diversity of evaluation.</li> <li>o Use of technology</li> </ul>			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Researchers	Introduction to environmental science (origination and development)	discussion	Exams
2	2	Researchers	The field of ecology and its relationship to geography	discussion	Exams
3	2	Researchers	Modern research methods in ecology	Discussion	Exams
4	2	Researchers	The biosphere and the biome	Discussion	Exams
5	2	Researchers	Ecosystems	Discussion	Exams
6	2	Researchers	The biological community, the group, and the organism	discussion	Exams
7	2	Researchers	The organism's living environment (habitat and habitat)	Discussion	Exams
8	2	Researchers	Organisms that transport energy through an ecosystem	Discussion	Exams
9	2	Researchers	Pathways for energy to flow through an ecosystem	discussion	Exams

10+11	2	Researchers	Ecological macrocycles	Discussion	Exams
12		Researchers	Succession and ecological stability	Discussion	Exams
13+14	2	Researchers	Models of ecological relationships (adaptation, competition, predation, symbiosis)	Discussion	Exams
15	2	Researchers	Monthly exam	discussion	Exams

### 11.Course Evaluation

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

First month exam (theoretical)	Second month exam (theoretical)	Daily assignments	Final exam	Total
15	15	10	60	100 %

### 12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	<p>Hussein Al-Saadi, Environmental Science, Al-Yazouri Publishing and Distribution House, Jordan, Arabic Edition, 2008.</p> <p>Shukri Ibrahim Al-Hassan, Introduction to Environmental Science and Its Problems, 2nd edition, Dar Al-Maaref University Books, 2018.</p> <p>Hassan Sayed Ahmed Abu Al-Enein and others, Human Geography and the Environment, Academic Publishing and Distribution House, Kuwait, 1st edition, 2006.</p>
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Internet sites specialized in the ecolgy and its problems.

## Course Description Form

<b>1. Course Name:</b>
City Region
<b>2. Course Code:</b>
Not coded
<b>3. Semester / Year:</b>
1st Semester -4 <sup>th</sup> Year
<b>4. Description Preparation Date:</b>
The beginning of the academic course
<b>5. Available Attendance Forms:</b>
Physical and virtual attendance.
<b>6. Number of Credit Hours (Total) / Number of Units (Total):</b>
30 hours/ 2 units
<b>7. Course administrator's name (mention all, if more than one name)</b>
<b>Name:</b> Entezar Jassem Jebr <b>Email:</b> <a href="mailto:entezarjassem@coart.uobaghdad.edu.iq">entezarjassem@coart.uobaghdad.edu.iq</a>
<b>8. Course Objectives</b>
<p>The student's ability to understand the interactive relationship between the city and its region:</p> <ul style="list-style-type: none"> <li>- Learning about the types of regions and the importance of the functional relationship between the city and its region and its impact on development.</li> <li>- Familiarizing the student with the various types of relationships that connect the city with its region.</li> <li>- Developing knowledge and expanding students' thinking horizons, along with the ability to analyze.</li> <li>- Developing students' scientific capabilities and the ability to analyze and understand problem-solving alternatives.</li> <li>- Cultivating scientific thinking based on factual evidence.</li> <li>- Establishing a structured process for developing solutions to the presented problems.</li> </ul>
<b>9. Teaching and Learning Strategies</b>
<ul style="list-style-type: none"> <li>1- Interactive lectures between the professor and the students.</li> <li>2- The brainstorming method by presenting the problem and seeking solutions through discussion between the professor and the students.</li> <li>3- The inductive method to reach conclusions by analyzing the material's concepts using illustrative means, maps, diagrams, and figures.</li> <li>4- Presenting educational films related to the subject matter.</li> </ul>
<b>10. Course Structure</b>

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method	
1	2	researchers	Definition of the City and its Emergence, and Definition of the City Region	theoretical	Exams, research, and drawing-based questions	
2	2	researchers	Types of regions	theoretical	Exams, research, and drawing-based questions	
3	2	researchers	Types of regions	theoretical	Exams, research, and drawing-based questions	
4	2	researchers	How do define a city region?	theoretical	Exams, research, and drawing-based questions	
5	2	researchers	How do define a city region?	theoretical	Exams, research, and drawing-based questions	
6	2	researchers	The relationships between a city and its region	theoretical	Exams, research, and drawing-based questions	
7	2	researchers	The relationships between a city and its region	theoretical	Exams, research, and drawing-based questions	
8	2	researchers	The relationships between a city and its region	theoretical	Exams, research, and drawing-based questions	
9	2	researchers	Iraq's Planning Experience in Defining the City Region	theoretical	Exams, research, and drawing-based questions	
10	2	researchers	Iraq's Planning Experience in Defining the City Region	theoretical	Exams, research, and drawing-based questions	
11	2	researchers	Iraq's Planning Experience in Defining the City Region	theoretical	Exams, research, and drawing-based questions	
12	2	researchers	Discussion of the experience of delimiting regions in other cities.	theoretical	Exams, research, and drawing-based questions	
13	2	Researchers	Discussion of Student Research papers regarding the Subject matter	theoretical	Exams, research, and drawing-based questions	
14	2	researchers	Discussion of Student Research papers regarding the Subject matter	theoretical	Exams, research, and drawing-based questions	
15	2	researchers	Discussion of Student Research papers regarding the Subject matter	theoretical	Exams, research, and drawing-based questions	



## 11. Course Evaluation

Distribution of the 100-point grade according to the tasks assigned to the student, such as daily preparation, daily exams, oral exams, monthly exams, written exams, reports, etc.

40% Continuous Assessment (divided between monthly exams, attendance and participation, and daily quizzes)

60% Final Exam

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	if The textbook
Main references (sources)	Khalas Al-Ash'ab, <i>City Region</i> along with numerous modern books to cover the subject matter, research papers, as well as theses and dissertations that focus on studying the relationship between the city and the region.  Mazen Abdul Rahman Ilhiti, <i>City Region</i>
Recommended books and references (scientific journals, reports...)	In addition to the research papers, theses, and dissertations, there are also statistical reports published by the Central Agency for Statistics in the Ministry of Planning.
Electronic References, Websites	

## Course Description Form

1. <i>Course Name:</i> climatology geography							
2. <i>Course Code:</i> Climatology /ct/ 109 GCt							
3. <i>Semester / Year:</i> first year first semester 2023-2024							
4. <i>Description Preparation Date:</i> 1/9/2023							
5. Available Attendance Forms:							
6. Number of Credit Hours (Total) / Number of Units (Total) 45							
7. Course administrator's name (mention all, if more than one name)							
<i>Name: hussain jabber wassmi alshammary</i> <i>Email: Hussainalshammary@coart.uobaghdad.edu.iq</i>							
8. Course Objectives							
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>Course Objectives</b>  <i>Providing students with basic information about the principles, theories and laws of climatology science and enabling them to use that information to understand and predict climate phenomena and then attempt to control and regulate them, as well as finding the relationship between climatology phenomena and analyzing them.</i> </td> <td style="width: 50%; vertical-align: top;"> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> </td> </tr> </table>						<b>Course Objectives</b> <i>Providing students with basic information about the principles, theories and laws of climatology science and enabling them to use that information to understand and predict climate phenomena and then attempt to control and regulate them, as well as finding the relationship between climatology phenomena and analyzing them.</i>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div>
<b>Course Objectives</b> <i>Providing students with basic information about the principles, theories and laws of climatology science and enabling them to use that information to understand and predict climate phenomena and then attempt to control and regulate them, as well as finding the relationship between climatology phenomena and analyzing them.</i>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div>						
9. Teaching and Learning Strategies							
<b>Strategy</b>							
10. Course Structure							
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>		



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## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books and any)	<p>1 شريف ، ابراهيم ابراهيم ، جغرافية الطقس ، مطبعة دار الحكمة ، بغداد ، العراق ، 1990</p> <p>2 السامرائي ، قصي عبد المجيد ، جغرافية الطقس ، عمان ، مطبعة اليازوري ، 2008</p>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	<p>1-<a href="http://www.vortexplymouth.com">www.vortexplymouth.com</a></p> <p>2-<a href="http://www.Americanmeteorologicalorganization">www.Americanmeteorologicalorganization</a></p>

## Course Description Form

1. Course Title: <b>GIS Practical</b>	
2. Course Code: <i>Unencoded</i>	
3. Semester / Year: <i>First Semester/ 2024/2025</i>	
4. Date of preparation of this description: <i>30/9/2024</i>	
5. Available Forms of Attendance: <b>Presence</b>	
6. Number of Credit Hours (Total) / Number of Units (Total) <b>3 Credit Hours 1.5 Credit Hours</b>	
7. Course administrator's name (if more than one name)	
<b>Name: Prof. Dr. Nahed Hatif Mohammed</b>	<b>Email : <a href="mailto:nahdh@coart.uobaghdad.edu.iq">nahdh@coart.uobaghdad.edu.iq</a></b>
8. Course Objectives	
<ul style="list-style-type: none"> <li>• <b>Developing the student's knowledge of the importance of geographic information systems in geographical studies</b></li> <li>• <b>Develop student knowledge of the role of GIS in supporting decision-making related to location</b> <ul style="list-style-type: none"> <li>• <b>Developing the student's knowledge of modern geographical technologies</b></li> <li>• <b>Developing the student's knowledge of GIS applications in geography and other</b></li> </ul> </li> </ul>	<b>Course Objectives</b>

<b>sciences</b>					
<b>9. Teaching and Learning Strategies</b>					
<i>Step-by-step learning on the program</i>					<b>Strategy</b>
<b>10. Course Structure</b>					
<b>Evaluation method</b>	<b>Learning method</b>	<b>Unit or subject name</b>	<b>Required Learning Outcomes</b>	<b>Hours</b>	<b>The week</b>
Practical test	Direct application to the program	General review of the program interface	Learn the basics of the program	3	1
Practical test	Direct application to the program	General review of the toolbar and standard ribbon	Learn the basics of the program	3	2
Practical test	Direct application to the program	Learn Coordinate Correction Methods for Paper Maps	Learn the basics of the program	3	3
Practical test	Direct application to the program	Learn Coordinate Correction Methods for Paper Maps	Learn the basics of the program	3	4
Practical test	Direct application to the program	Build a spatial database in Arc catalog10.4	Learn the basics of the program	3	5
Practical test	Direct application to the program	How to work in the Editor toolbar	Learn the basics of the program	3	6
Practical test	Direct application to the program	How to work in the Editor toolbar	Learn the basics of the program	3	7
Practical test	Direct application to the program	How to deal with labeling	Learn the basics of the program	3	8
Practical test	Direct application to the program	How to deal with Symbology coding bar	Learn the basics of the program	3	9
Practical test	Direct application to the program	How to deal with Symbology coding bar	Learn the basics of the program	3	10
Practical test	Direct application to the program	How to choose symbols and their types	Learn the basics of the program	3	11
Practical test	Direct application to the program	How to deal with the Geoprocessing spatial analysis bar	Learn the basics of the program	3	12
Practical test	Direct application to the program	How to deal with the Geoprocessing spatial analysis bar	Learn the basics of the program	3	13

Practical test	Direct application to the program	How to work with the Layout output bar	Learn the basics of the program	3	14
Practical test	Direct application to the program	Practical tests for the end of the semester	Learn the basics of the program	3	15

### 11. Course Evaluation

*Daily Exams Daily Participation Monthly Exams Final Exam*

### 12. Learning and Teaching Resources

<b>Arc GIS 10</b>	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended books and references (scientific journals, reports...)
Videos for learning the program from the work of the subject teacher <a href="http://WWW.youtube.com/@nahdhalsaaedy">http://WWW.youtube.com/@nahdhalsaaedy</a>	<b>Electronic References, Websites</b>

## Course Description Form

1. <i>Course Name/ Network Analysis</i>	
2. <i>Course Code/Unencoded</i>	
3. <i>Semester / Fourth Year / Second Semester / 2024/2025</i>	
4. <i>Date of preparation of this description/ 30/9/2024</i>	
5. Available Forms of Attendance / Presence	
6. Number of credit hours (total) 3/ Number of units (total) 1.5	
7. Course administrator's name (if more than one name)	
Name: Prof. Nahdh Hatif Mohammed	Email: nahdh@coart.uobaghdad.edu.iq
8. Course Objectives	
<ul style="list-style-type: none"> <li>Training the student and providing him with skills for the use of GIS programs in network analysis and geographical applications.</li> <li>Introducing ArcGIS 10.8 and the possibility of benefiting from it in network analysis, mapping and building a network spatial database (linear) because of its flexibility and high efficiency in this field.</li> </ul>	<b>Course Objectives</b>
9. Teaching and Learning Strategies	
<i>Step-by-step learning on the program while keeping abreast of updates on the program and its tools.</i>	<b>Strategy</b>

<b>10. Course Structure</b>					
<b>Evaluation method</b>	<b>Learning method</b>	<b>Unit or subject name</b>	<b>Required Learning Outcomes</b>	<b>Hours</b>	<b>The week</b>
Practical test	Direct application to the program	What is a network?	Learn GIS apps	3	1
Practical test	Direct application to the program	Network Dataset	Learn GIS apps	3	2
Practical test	Direct application to the program	Network datasets (transportation networks)	Learn GIS apps	3	3
Practical test	Direct application to the program	Multimodal network datasets	Learn GIS apps	3	4
Practical test	Direct application to the program	Network Analyst extension	Learn GIS apps	3	5
Practical test	Direct application to the program	What's the best route?	Learn GIS apps	3	6
Practical test	Direct application to the program	Closest facility	Learn GIS apps	3	7
Practical test	Direct application to the program	Service areas	Learn GIS apps	3	8
Practical test	Direct application to the program	What is accessibility?	Learn GIS apps	3	9
Practical test	Direct application to the program	Evaluating accessibility	Learn GIS apps	3	10
Practical test	Direct application to the program	OD cost matrix	Learn GIS apps	3	11
Practical test	Direct application to the program	Vehicle routing problem	Learn GIS apps	3	12
Practical test	Direct application to the program	3D network datasets	Learn GIS apps	3	13
Practical test	Direct application to the program	Tests	Learn GIS apps	3	14
Practical test	Direct application to the program	Tests	Learn GIS apps	3	15
<b>11. Course Evaluation</b>					
<i>Daily exams, class participation, monthly exams, and final exams.</i>					
<b>12. Learning and Teaching Resources</b>					
<i>Arc GIS 10</i>			Required textbooks (method, if any)		
			Main references (sources)		
			Recommended books and references (scientific journals, reports...)		
<i>Videos for learning the program from the work of the subject teacher</i> <i><a href="http://WWW.youtube.com/@nahdhalsaaedy">http://WWW.youtube.com/@nahdhalsaaedy</a></i>			Electronic References, Websites		



## Course Description Form

1. <i>Course Name/ Spatial Analysis</i>					
2. <i>Course Code/Unencoded</i>					
3. <i>Semester / Year Second Semester / 2024/2025</i>					
4. <i>Date of preparation of this description/ 30/9/2024</i>					
5. Available Forms of Attendance / Presence					
6. Number of credit hours (total) 3/ Number of units (total) 1.5					
7. Course administrator's name (if more than one name)					
<p style="text-align: center;"><b>Name: Prof. Nahed Hatif Mohammed</b>  <b>Email : nahdh@coart.uobaghdad.edu.iq</b></p>					
8. Course Objectives					
<ul style="list-style-type: none"> <li>Training the student and providing him with skills for the uses of GIS programs in geographical topics.</li> <li>Introducing ArcGIS10.8 and the possibility of benefiting from it in spatial analysis, mapping and building a spatial database because of its flexibility and high efficiency in this field</li> </ul>			<b>Course Objectives</b>		
9. Teaching and Learning Strategies					
<i>Step-by-step learning on the program while keeping abreast of updates on the program and its tools</i>				<b>Strategy</b>	
10. Course Structure					
<b>Evalu ation meth od</b>	<b>Learning method</b>	<b>Unit or subject name</b>	<b>Required Learning Outcomes</b>	<b>Hours</b>	<b>The week</b>



Direct application to the program	Spatial Analyst tools	Learn spatial analytics with GIS	3
Direct application to the program	Kernel Density	Learn spatial analytics withGIS	3
Direct application to the program	Line Density	Learn spatial analytics withGIS	3
Direct application to the program	Point Density	Learn spatial analytics withGIS	3
Direct application to the program	Extraction	Learn spatial analytics withGIS	3
Direct application to the program	Extract by mask	Learn spatial analytics withGIS	3
Direct application to the program	Surface	Learn spatial analytics withGIS	3
Direct application to the program	Aspect	Learn spatial analytics withGIS	3
Direct application to the program	Contour	Learn spatial analytics withGIS	3
Direct application to the program	Hillshade	Learn spatial analytics withGIS	3
Direct application to the program	Spatial Statistics Tools	Learn spatial analytics withGIS	3
Direct application to the program	Analyzing patterns of Average Nearest Neighbor	Learn spatial analytics withGIS	3
Direct application to the program	Linear Directional Mean +Central Feature + Directional Distribution	Learn spatial analytics withGIS	3
Direct application to the program	Mean Center+ Median Center+ Standard Distance	Learn spatial analytics withGIS	3
Direct application to the program	Tests	Learn spatial analytics with GIS	3

## 11. Course Evaluation

*Daily exams, class participation, monthly exams and final exams.*

## 12. Learning and Teaching Resources

<b>Arc GIS 10</b>	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended books and references (scientific journals, reports...
<b>Videos for learning the program from the work of the subject teacher</b> <a href="http://WWW.youtube.com/@nahdhalsaaedy">http://WWW.youtube.com/@nahdhalsaaedy</a>	Electronic References, Websites

## Course Description Form

1. <i>Course Name:</i> weather geography							
2. <i>Course Code:</i> Weather /Wt /101 GWt							
3. <i>Semester / Year:</i> first year first semester 2023-2024							
4. <i>Description Preparation Date:</i> 1/9/2023							
5. Available Attendance Forms:							
6. Number of Credit Hours (Total) / Number of Units (Total) 45							
7. Course administrator's name (mention all, if more than one name)							
<i>Name: hussain jabber wassmi alshammary</i> <i>Email: Hussainalshammary@coart.uobaghdad.edu.iq</i>							
8. Course Objectives							
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>Course Objectives</b>  <i>Providing students with basic information about the principles, theories and laws of weather science and enabling them to use that information to understand and predict weather phenomena and then attempt to control and regulate them, as well as finding the relationship between weather phenomena and analyzing them.</i> </td> <td style="width: 50%; vertical-align: top;"> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> </td> </tr> </table>						<b>Course Objectives</b> <i>Providing students with basic information about the principles, theories and laws of weather science and enabling them to use that information to understand and predict weather phenomena and then attempt to control and regulate them, as well as finding the relationship between weather phenomena and analyzing them.</i>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div>
<b>Course Objectives</b> <i>Providing students with basic information about the principles, theories and laws of weather science and enabling them to use that information to understand and predict weather phenomena and then attempt to control and regulate them, as well as finding the relationship between weather phenomena and analyzing them.</i>	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">●</div> <div>.....</div> </div>						
9. Teaching and Learning Strategies							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 5px;"><b>Strategy</b></td> <td style="height: 60px;"></td> </tr> </table>						<b>Strategy</b>	
<b>Strategy</b>							
10. Course Structure							
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>		

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## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books and any)	<p>1 شريف ، ابراهيم ابراهيم ، جغرافية الطقس ، مطبعة دار الحكمة ، بغداد ، العراق ، 1990</p> <p>2 السامرائي ، قصي عبد المجيد ، جغرافية الطقس ، عمان ، مطبعة اليازوري ، 2008</p>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	<p>1-<a href="http://www.vortexplymouth.com">www.vortexplymouth.com</a></p> <p>2-<a href="http://www.Americanmeteorologicalorganization">www.Americanmeteorologicalorganization</a></p>

## Course Description Form

<b>1. Course Name:</b>	
Human Geography of Iraq	
<b>2. Course Code:</b>	
Not coded	
<b>3. Semester / Year:</b>	
2nd Semester-4 <sup>th</sup> Year	
<b>4. Description Preparation Date:</b>	
The beginning of the academic course	
<b>5. Available Attendance Forms:</b>	
Physical and virtual attendance.	
<b>6. Number of Credit Hours (Total) / Number of Units (Total):</b>	
30 hours/ 2 units	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
<b>Name:</b> Entezar Jassem Jebr <b>Email:</b> <a href="mailto:entezarjassem@coart.uobaghdad.edu.iq">entezarjassem@coart.uobaghdad.edu.iq</a>	
<b>8. Course Objectives</b>	
	<ul style="list-style-type: none"> <li>- Understanding the importance of knowledge in building the self and society and improving the reality of life for the better</li> <li>- Emphasizing the love of the details of the homeland and the understanding of the difference in cultural aspects because it is a reflection of the geographical and historical dimensions.</li> <li>- The primary goal of knowledge is to develop the human being and satisfy his spirit of knowledge.</li> <li>- Developing ideas to be a cumulative treasure for the student in the field of life and work.</li> <li>- The student's knowledge of the details of Iraq's human geography related to the distribution of the population and their economic activities and their geographical distribution.</li> <li>- Teaching the student to draw a map of Iraq and distribute the human geographical phenomena on it.</li> <li>- Instilling a love for the homeland, its cities, and its tourist attractions and preserving its environment.</li> </ul>
<b>9. Teaching and Learning Strategies</b>	
	<ol style="list-style-type: none"> <li>1- Interactive lectures between the professor and the students.</li> <li>2- The brainstorming method by presenting the problem and seeking solutions through discussion between the professor and the students.</li> <li>3- The inductive method to reach conclusions by analyzing the material's concepts using illustrative means, maps, diagrams, and figures.</li> <li>4- Presenting educational films related to the subject matter.</li> </ol>

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	researchers	Economic activity - agriculture	theoretical	Exams, research, and drawing-based questions
2	2	researchers	Agriculture + industry	theoretical	Exams, research, and drawing-based questions
3	2	researchers	Industry and mineral wealth	theoretical	Exams, research, and drawing-based questions
4	2	researchers	Trade	theoretical	Exams, research, and drawing-based questions
5	2	researchers	Transportation	theoretical	Exams, research, and drawing-based questions
6	2	researchers	Population (growth)	theoretical	Exams, research, and drawing-based questions
7	2	researchers	Population distribution	theoretical	Exams, research, and drawing-based questions
8	2	researchers	Population composition	theoretical	Exams, research, and drawing-based questions
9	2	researchers	Human settlement and development	theoretical	Exams, research, and drawing-based questions
10	2	researchers	Rural and urban settlement	theoretical	Exams, research, and drawing-based questions
11	2	researchers	The emergence and development of cities	theoretical	Exams, research, and drawing-based questions
12	2	researchers	Factors affecting the emergence and development of cities	theoretical	Exams, research, and drawing-based questions
13	2	Researchers	Factors affecting the emergence of cities	theoretical	Exams, research, and drawing-based questions
14	2	researchers	Distribution of urban settlement areas and their ranks	theoretical	Exams, research, and drawing-based questions
15	2	researchers	Ranks of urban settlement	theoretical	Exams, research, and drawing-based questions

## 11. Course Evaluation

Distribution of the 100-point grade according to the tasks assigned to the student, such as daily preparation, daily exams, oral exams, monthly exams, written exams, reports, etc.

40% Continuous Assessment (divided between monthly exams, attendance and participation, and daily quizzes)

60% Final Exam

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	if Other textbooks on the geography of Iraq
Main references (sources)	<ul style="list-style-type: none"><li>• <i>Regional Geography of Iraq from a Contemporary Perspective</i> by Abdul Zahra Al-Janabi, 2020.</li><li>• <i>Geography of Iraq</i> by Abbas Al-Saadi, Ministry of Higher Education and Scientific Research, University of Baghdad, 2009.</li><li>• <i>Geography of Iraq</i> by Khattab Kassar Al-Ani, Ministry of Higher Education and Scientific Research, University of Baghdad, 1988.</li><li>• <i>Fundamentals of Natural and Human Geography of Iraq</i> by Falah Jamal Marouf, Bashir Ibrahim, and Salam Fadel, 2013.</li></ul>
Recommended books and references (scientific journals, reports...)	In addition to the research papers, theses, and dissertations, there are also statistical reports published by the Central Agency for Statistics in the Ministry of Planning.
Electronic References, Websites	

## Course Description Form

1. Course Name:	
Geographical Statistics	
2. Course Code:	
no	
3. Semester / Year:	
Second Semester / 2025-2024	
4. Description Preparation Date:	
29 / 9 / 2024	
5. Available Attendance Forms:	
<i>Face-to-face education</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hours	
7. Course administrator's name (mention all, if more than one name)	
<i>Name: Assistant Prof. Dr. Haider Hussein Abdul Sattar</i> <i>Email: haedarmandelawi@coart.uobaghdad.edu.iq</i>	
8. Course Objectives	
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>• Knowledge</li> <li>• Skill</li> <li>• Practicality</li> </ul>
9. Teaching and Learning Strategies	
<b>Strategy</b>	<ul style="list-style-type: none"> <li>- Knowledge and understanding</li> <li>- Students' knowledge and understanding of statistics and its relationship to geography</li> <li>- Students' knowledge and understanding of the relationship between statistics and its geographical applications and other sciences</li> <li>- Students' knowledge and understanding of the requirements of statistics and its geographical applications</li> <li>- Students' knowledge and understanding of the types of mathematical averages of statistics and their application in geography</li> <li>- Knowledge and understanding of students on how to use the most important statistical mathematical averages that can be used in geography, to accomplish various geographical research</li> <li style="padding-left: 20px;">The strategy of the skills objectives of the course.</li> <li>- Subject-specific skills</li> <li>- Developing students' skills using mathematical equations for statistics.</li> <li>- Developing students' skills in applying and solving statistical</li> </ul>

*mathematical equations and using them to solve various geographical problems.*

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Learn	- Definition of statistics	Lecture	and
2	2	descriptive	- The relationship of statistics to geography	discussion	Oral and
3	2	and	- Definition of geographical indications	=	written tests
4	2	inferential	- Classification and organization of data	=	=
5	2	statistics	- View data	=	=
6	2	=	- Sample and its types	=	=
7	2	=	- Sample size extraction	=	=
8	2	=	- Measures of central tendency/arithmetic mean	=	=
9	2	=	- Measures of central tendency/median	=	=
10	2	=	- Measures of central tendency/mode	=	=
11	2	=	- Work on Excel	=	=
12	2	=	- Dispersion/range scales	=	=
13	2	=	- Mean	=	=
14	2	=	dispersion/deviation scales	=	=
15	2	=	- Standard dispersion/deviation scales	=	=
		=	- Contrast c.v		
			- Coefficient of variation		
			- Work on Excel		

## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<ul style="list-style-type: none"> <li>• <i>Fundamentals of Statistics with SPSS Applications, Ibrahim Murad Al-Daama</i></li> <li>• <i>Quantitative Methods in Geography, Hassan Ali Moussa</i></li> <li>• <i>Quantitative and statistical geography: foundations and applications of modern computational methods, Nasser Abdullah Saleh and others</i></li> </ul>
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	<ul style="list-style-type: none"> <li>• <i>Statistics, Kamel Fleifel and Fathi Hamdan</i></li> </ul> <i>Quantitative statistical methods in geography - Ali Al-Azzawi</i>
Main references (sources)	<i>Mentioned in the preceding paragraph</i>
Recommended books and references (scientific journals, reports...)	<i>Reports and surveys of the Central Bureau of Statistics</i>
Electronic References, Websites	<i>Official websites of universities, ministries and research centers</i>

## Course Description Form

<b>1. Course Name:</b>					
<i>Regional Geography of North America</i>					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
<i>Third year/first semester</i>					
<b>4. Description Preparation Date:</b>					
25/9/2024					
<b>5. Available Attendance Forms:</b>					
<i>In person and electronic</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: <i>Hind Fawzi Wafiq</i>					
Email: <a href="mailto:hind3h5t@coart.uobaghdad.edu.iq">hind3h5t@coart.uobaghdad.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			The academic program aims to identify the nature of regional study, and its place among the branches of geography, where it studies and analyzes natural, economic, and human characteristics, as explained later.		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
		<i>Geographer</i>	<i>What is the regional study?</i> <i>Location and space</i> <i>Geological structure</i> <i>Terrain features</i> <i>Terrain features</i>  <i>Terrain features</i> <i>Climate and factors affecting it</i>	<i>Interactive lectures + video presentation + theoretical lectures</i>	

			<i>Climate and factors affecting it</i> <i>Exam</i> <i>Climatic regions</i> <i>Botanical regions</i> <i>Soil zone</i> <i>Water Resources</i> <i>Population characteristics</i>		
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11.

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

1. Course Name:	
Regional geography of Africa	
2. Course Code:	
3. Semester / Year:	
first year/ second semester	
4. Description Preparation Date:	
25/9/2024	
5. Available Attendance Forms:	
<i>In person and electronic</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>30 practical + 15 theoretical hours / 30 units</i>	
7. Course administrator's name (mention all, if more than one name)	
Name: Hind Fawzi Wafiq	
Email: <a href="mailto:hind3h5t@coart.uobaghdad.edu.iq">hind3h5t@coart.uobaghdad.edu.iq</a>	
8. Course Objectives	
<b>Course Objectives</b>	The academic program aims to identify the nature of regional study, and its place among the branches of geography, where it studies and analyzes the natural, economic, and human characteristics of the African continent.
9. Teaching and Learning Strategies	
<b>Strategy</b>	
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
		<i>Geographer</i>	<i>What is the regional study?</i> <i>Location and space</i> <i>Geological structure</i> <i>Terrain features</i> <i>Climate and factors affecting it</i> <i>Climatic regions</i> <i>Botanical regions</i> <i>Soil zone</i> <i>Water Resources</i>  <i>Population characteristics</i> <i>Agricultural activity</i> <i>Industrial activity</i> <i>transportation</i> <i>Internal and external trade</i>	<i>Interactive lectures + video presentation + theoretical lectures</i>	

11.

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

<b>1. Course Name:</b>					
Quaternary geomorphology					
<b>2. Course Code:</b>					
<b>3. Semester / Year:</b>					
Second semester/fourth academic year					
<b>4. Description Preparation Date:</b>					
25/9/2024					
<b>5. Available Attendance Forms:</b>					
<i>In-person and electronic education</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<i>Name: Prof. Dr Abdullah Sabbar Abod</i> <i>Email: <a href="mailto:abdallahsabbar@coart.uobaghdad.edu.iq">abdallahsabbar@coart.uobaghdad.edu.iq</a></i>					
<b>8. Course Objectives</b>					
<b>The academic program aims to introduce students to the nature of the Quaternary time and the general characteristics of the climate at this time, and then the nature of the geomorphological evidence and the forms resulting from it.</b>					
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
1+2	4	Geographer	Introduction to geological history. Relative history. Absolute history. Time and geological epochs.	Interactive sessions + video presentation + theoretical lectures	Exams + activities + reports
3+4	4		The evolution of the Earth's ancient climate.		

5+6		4	The development of third-time environments.		
7+8		4	The transition from the third geological time to the fourth geological time. Discovery of the Ice Age		
9+10		4	Holocene and late Pleistocene glaciation. Climate change and its consequences in the fourth time.		
11+12		4	Surface geomorphology of Iraq. Some geomorphological forms resulting from the fourth period, Iraq as an example. Plant and animal life in Iraq in the fourth era.		
13+14+15					

## 11. Course evaluation

*Distributing the grade out of 100 into (40%) according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, and reports (60% for the final exam)*

## 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## نموذج وصف المقرر

1. اسم المقرر /	
جغرافية الطاقة المتجددة	
2. رمز المقرر	
GPd 455	
3. الفصل / السنة	
الفصل الدراسي الثاني/ السنة الدراسية الرابعة	
4. تاريخ إعداد هذا الوصف /	
25/9/2024	
5. أشكال الحضور المتاحة	
حضورى والالكتروني	
6. عدد الساعات الدراسية (الكلي)/ عدد الوحدات (الكلي)	
30 عملي + 15 ساعة نظري / 30 وحدة	
7. اسم مسؤول المقرر الدراسي ( إذا أكثر من اسم يذكر)	
الاسم:	
الأيمل :	
ا.م.د. علاء محسن شنشول	
<a href="mailto:dralaamuhseen@coart.uobaghdad.edu.iq">dralaamuhseen@coart.uobaghdad.edu.iq</a>	
8. اهداف المقرر	
اهداف المادة الدراسية	
يهدف البرنامج الأكاديمي إلى التعرف على المعلومات	
والية استخدام الطاقة المتجددة	
9. استراتيجيات التعليم والتعلم	
الاستراتيجية	
11. تقييم المقرر	
توزيع الدرجة من 100 على (40%) وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية	
والتحضيرية والتقارير ( 60 % الامتحان النهائي )	
12. مصادر التعلم والتدريس	
الكتب المقررة المطلوبة ( المنهجية أن وجدت )	
(	
المراجع الرئيسية ( المصادر)	
الكتب والمراجع الساندة التي يوصى بها	
(المجلات العلمية، التقارير.... )	
المراجع الإلكترونية ، مواقع الانترنت	
نصوص أساسية	
أفلام فيديو خاصة	
مصادر اخرى حديثة تتوزع عليها مفردات المادة	



## Course Description Form

1. <i>Course Name: Soil Geography</i>					
2. <i>Course Code:</i>					
3. <i>Semester / Year: Year 2023 - 2024</i>					
4. <i>Description Preparation Date: prepared 25\9\2024</i>					
5. Available Attendance Forms:					
<i>Presence only</i>					
6. Number of Credit Hours (Total) / Number of Units (Total)					
<i>Total number of study hours = 30 \ total number of units =2.5</i>					
7. Course administrator's name (mention all, if more than one name)					
<i>Name: Lecture Dr. Qods Osama Qawam</i>					
<i>Email: qods.hasan@coart.uobaghdad.edu.iq</i>					
8. Course Objectives					
<b>Course Objectives</b>		<b>Documenting the student's knowledge of soil, its foundations and principles</b> <b>So that the student can distinguish between studying its classes and between types and classes</b> <b>Developing the student's skills in studying the chemical properties of soil</b>			
9. Teaching and Learning Strategies					
<b>Strategy</b>		<i>Presentation – coordination – training - discussion</i>			
10. Course Structure					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
1-4	2	<i>Soil geography</i>	<i>Historical overview, definition of pedology Influencing factors, the concept of soil body Soil horizons, factors affecting formation the soil</i>	<i>Theoretical</i>	<i>Theoretical Exam</i>
5-7	2		<i>Soil physical and chemical properties Geographical distribution of soil in the world</i>		

8-10	2		<i>Classification of soil according to the two Russian schools and the American, soil distribution in Iraq its problems and ways to address them</i>		
15-11	2		<i>Learn how to use tools for taking a soil sample, learn about the different methods for taking it, and then how to prepare it for the laboratory</i>	Practical	Practical exam

## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books if any)	<i>Soil Geography book , by Ibrahim Ibrahim Sharif</i>
Main references (sources)	<i>Book on soil science, its types- characteristics – problems and means of improvement, kamal Sheikh Hassein, introduction to soil Geography book, Mahmoud Abdel Aziz Abu Al- Anein</i>
Recommended books and references (scientific journals, reports...)	<i>Applied geography content for soil and land use</i>
Electronic References, Websites	<i>Several sites</i>

## Course Description Form

<b>1. Course Name: Geography of south America</b>					
<b>2. Course Code:</b>					
<b>3. Semester / Year: Year 2023 - 2024</b>					
<b>4. Description Preparation Date: prepared 14\3\2024</b>					
<b>5. Available Attendance Forms:</b>					
<i>Presence only</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>Total number of study hours = 30 \ total number of units =2</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<i>Name: Lecture Dr. Quds Osama Qawam</i>					
<i>Email: gods.hasan@coart.uobaghdad.edu.iq</i>					
<b>8. Course Objectives</b>					
<b>Objectives of the study subject</b>		<b>Documenting student knowledge of soil, its foundations and principles</b> <b>So that the student can carry out activities that help him learn about</b> <b>The characteristics and ongoing activities of the continents population work to provide supporting images and films for the material requirements .</b>			
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<i>Presentation – coordination – training - discussion</i>			
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
1-4	2	<i>Geography of south America</i>	<i>Discovery of the continent , natural characteristics of the site . Geological structure and surface.</i>	<i>Theoretical</i>	<i>Theoretical Exam</i>
5-7	2		<i>Climate . factors affecting germinal characteristics its elements and regions.</i>		

8-10	2		<i>Natural vegetation and its regions, soil and its characteristics and regions,</i>		
15-11	2		<i>Human characteristics, the continents population, their size, composition, and agricultural and industrial activities, as well as a comprehensive study of the geographic regions of the Latin American continent, with detailed study of the country of Brazil.</i>		

## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (methodology, any)	<i>Continental Geography book , by Dr. Ali Musa</i>
Main references (sources)	<i>Regional Geography book , Dr. Fathi Abu Alanen</i>
The prevailing books and references (scientific journals, reports...)	<i>Geography of the Americas , Dr. Ali Sahib Al Moussawi</i>
Electronic References, Websites	<i>Several sites</i>

## Course Description Form

1. Course Name: <b>natural geography of Iraq</b>	
2. Course Code:	
3. Semester / Year: First Semester / Fourth Year / 2025	
4. Description Preparation Date: 22/9/2025	
5. Available Attendance Forms: In-person and online attendance.	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hours / 2 units	
7. Course administrator's name (mention all, if more than one name)	
Name: taghreed ahmed umran Email: <a href="mailto:taghreedalgadi@coart.uobaghdad.edu.iq">taghreedalgadi@coart.uobaghdad.edu.iq</a>	
8. Course Objectives	
Course Objectives	<ul style="list-style-type: none"> <li>1- Student understanding of the concept of natural geography of Iraq.</li> <li>2- Knowledge of the types of natural resources in Iraq.</li> <li>3- Understanding the geographical distribution of natural resources.</li> <li>4- Learning to draw and read maps depicting the distribution of natural aspects in Iraq.</li> <li>5- Enhancing students' spatial analysis skills of natural resources in Iraq</li> </ul>
9. Teaching and Learning Strategies	
Strategy	

## 10. Course Structure

the week	hours	Required learning outcomes	Name of the unit/course or subject	Teaching method	Evaluation method
First	2	Strategic Importance of Iraq's Location Throughout History	Introducing Iraq's geographic and astronomical location	Lecture, discussion, use of maps	Examination
Second	2	Geological Formation	Introducing the geological eras that Iraq has undergone	Lecture, discussion, use of maps	Examination
Third	2	Major Physiographic Units in Iraq	Understanding geomorphological features across Iraq's surface	Lecture, discussion, use of maps	Examination
Fourth	2	Mountainous Region	Identifying the high mountainous areas in Iraq	Lecture, discussion, use of maps	Examination
Fifth	2	Undulating Region	Introducing the characteristics of the undulating region	Lecture, discussion, use of maps	Examination
Sixth	2	Alluvial Plain	Identifying the features of the alluvial plain region	Lecture, discussion, use of maps and educational films	Examination
Seventh & Eighth	4	Western Plateau	Introducing the western plateau region	Lecture, discussion, use of maps	Examination
Ninth & Tenth	4	Climatic Regions in Iraq	Describing Iraq's climate throughout the year	Lecture, discussion, use of maps	Examination
Eleventh to Thirteenth	6	Surface and Ground Water Resources in Iraq	Describing rivers and tributaries (surface water), and groundwater and its distribution	Lecture, discussion, use of maps	Examination
Fourteenth	2	Types of Soils in Iraq	Introducing the types and colors of soils in Iraq	Lecture, discussion, use of maps	Examination
Fifteenth	2	Geographical Distribution of Natural Vegetation in Iraq	Identifying types of natural vegetation in Iraq	Lecture, discussion, use of maps	Examination

<b>11. Course Evaluation</b>	
Grade distribution is based on the tasks assigned to the student, such as daily preparation, daily quizzes, oral exams, monthly and written exams, reports, etc	
<b>12. Learning and Teaching Resources</b>	
Required textbooks (curricular books, if any)	
Main references (sources)	<ul style="list-style-type: none"> <li>• <i>Geography of Iraq</i> by Dr. Jassim Al-Khalaf</li> <li>• </li> </ul>
Recommended books and references (scientific journals, reports...)	<ul style="list-style-type: none"> <li>• <i>Geography of Iraq</i> by Dr. Fadel Al-Saadi</li> <li>• <i>The Climate of Iraq</i></li> </ul>
Electronic References, Websites	<ul style="list-style-type: none"> <li>• <i>Statistical Abstract of Iraq</i></li> </ul>

### Course description form



## Course Description Form

<b>1. Course Name:</b>					
Biogeography					
<b>2. Course Code:</b>					
-					
<b>3. Semester / Year:</b>					
Third year/first semester					
<b>4. Description Preparation Date:</b>					
25/9/2024					
<b>5. Available Attendance Forms:</b>					
<i>In person and electronic</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<i>Name: Dr. Hussam Kanaan Waheed</i>					
<i>Email: <a href="mailto:hussim@coart.uobaghdad.edu.iq">hussim@coart.uobaghdad.edu.iq</a></i>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<p>The academic program aims to introduce students to the nature of biogeography, as well as to learn about the types of plants and animals, the classifications of the plant and animal kingdoms, and the methods of plant propagation, as well as briefly addressing the most important plant and animal regions in the world.</p>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
		<i>Geographer</i>	<i>Biogeography (Term and concept) + foundations of classification of the plant kingdom. Foundations of classification of the animal</i>	<i>Interactive lectures + video presentation + theoretical lectures</i>	

			<i>kingdom + factors that control the distribution of vegetation..</i> <i>Plant evolution.</i> <i>The importance of geological history in the distribution of plants.</i> <i>Endemicity and discontinuity in life geography.</i> <i>Factors affecting plant growth.</i> <i>Methods of natural plant propagation</i> <i>Animal propagation</i> <i>The world's major plant groups and major faunal regions</i>		
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## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

<b>1. Course Name:</b>					
Industrial geography					
<b>2. Course Code:</b>					
-					
<b>3. Semester / Year:</b>					
Fourth year/first semester					
<b>4. Description Preparation Date:</b>					
25/9/2024					
<b>5. Available Attendance Forms:</b>					
<i>In person and electronic</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<i>Name: Dr. Intisar Hassoun Reda</i>					
<i>Email: <a href="mailto:intsar@coart.uobaghdad.edu.iq">intsar@coart.uobaghdad.edu.iq</a></i>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			The academic program aims to introduce students to the geography of industry and the most important research methods in it, as well as the importance of industry, its origins and development, industrial classification, and industrial links.		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
		<i>Geographer</i>	<i>Industry geography</i> <i>The importance of geography of industry.</i> <i>Research methods in industrial</i>	<i>Interactive lectures + video presentation + theoretical lectures</i>	

			<i>geography.</i> <i>Standards used in industry geography</i> <i>Definition of industry.</i> <i>Manufacturing industry.</i> <i>The emergence and development of the industry.</i> <i>The importance of the industry.</i> <i>Industrial classification.</i> <i>International Classification. Isic</i> <i>industrial development .</i> <i>Manufacturing.</i> <i>Industrial growth.</i> <i>Industrial structure patterns. Industrial links</i> <i>Economic savings.</i> <i>Factors of industrial localization</i>		
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## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

<b>1. Course Name:</b>					
Geography of water resources					
<b>2. Course Code:</b>					
-					
<b>3. Semester / Year:</b>					
Third year/second semester					
<b>4. Description Preparation Date:</b>					
25/9/2024					
<b>5. Available Attendance Forms:</b>					
<i>In person and electronic</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<i>Name: Dr. Suhaila Abd Nagem</i>					
<i>Email: <a href="mailto:suhaila.a@coart.uobaghdad.edu.iq">suhaila.a@coart.uobaghdad.edu.iq</a></i>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<p>The academic program and curriculum aim to introduce the geography of water resources, their nature, importance, and types. It then aims to address the problems to which water resources are exposed in arid and semi-arid areas, such as in Iraq, and what are the most important treatments for them. Taking into account statistical methods and means for measuring the water budget due to its importance in our dry areas.</p>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
		Geography	<i>Introduction to water resources</i> <i>The importance of water resources and</i>	<i>Interactive lectures + video presentation + theoretical</i>	

			<i>their classification</i> <i>Geographical</i> <i>distribution of water</i> <i>resources</i> <i>Water resources in</i> <i>the Arab world and</i> <i>the world</i> <i>Water crisis in the</i> <i>world</i> <i>Water resource</i> <i>problems and how</i> <i>to address them</i> <i>Application</i> <i>programs for</i> <i>measuring the water</i> <i>balance and other</i> <i>hydrological</i> <i>measurements</i>	<i>lectures</i>  <i>Using</i> <i>mathematical</i> <i>equations</i> <i>and</i> <i>statistical</i> <i>programs</i>	
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## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curriculum books, if any)	<i>Mahdi Al-Sahhaf, Water Resources in Iraq and Preserving them from Pollution, Publications of the Ministry of Information, 1976.</i> <i>All sources related to water resources in Iraq and the Arab world</i> <i>World Bank Water Resources Management website:</i> <a href="https://www.albankaldawli.org/ar/topic/waterresourcesmanagement">https://www.albankaldawli.org/ar/topic/waterresourcesmanagement</a>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

1. Course Name:	
Geomatics	
2. Course Code:	
Uncoded	
3. Semester / Year:	
First Semester 2024	
4. Description Preparation Date:	
September 25, 2024	
5. Available Attendance Forms:	
In-classroom with lab work	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Total Units: 30	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Fouad Jiyad Matar Email: fouad@coart.uobaghdad.edu.iq	
8. Course Objectives	
Course Objectives	Course Objectives: To train students and provide them with skills in using geographic information systems (GIS) software in geographic topics, and to introduce them to ArcGIS 10.8 and its potential use in spatial analysis, mapping, and building spatial databases, given its flexibility and high efficiency in this field.
9. Teaching and Learning Strategies	
Strategy	

## 10. Course Structure



the week	hours	Required learning outcomes	Name of the unit/course or subject	Teaching method	Evaluation method
1	2	Learn the basics of the program	A general review of the program interface	A live application on the program	A practical test
2	2	Learn the basics of the program	A general review of the toolbar and the standard bar	A live application on the program	A practical test
3	2	Learn the basics of the program.	Learn methods for correcting coordinates for paper maps	A live application on the program	A practical test
4	2	Learn the basics of the program	Learn methods for correcting coordinates for paper maps	A live application on the program	A practical test
5	2	Learn the basics of the program	Building a spatial database in Arc Catalog 10.2	A live application on the program	A practical test
6	2	Learn the basics of the program	How to work with the Editor toolbar	A live application on the program	A practical test
7	2	Learn the basics of the program	How to work with the Editor toolbar	A live application on the program	A practical test
8	2	Learn the basics of the program.	How to work with the Labeling bar	A live application on the program	A practical test
9	2	Learn the basics of the program	How to work with the Symbology bar	A live application on the program	A practical test
10	2	Learn the basics of the program	How to work with the Symbology	A live application on the	A practical test

11. Course Evaluation	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1- فيديوهات خاصة بتعلم البرنامج. 2- الجيوماتكس علم المعلومات الارضية. د. جمعة محمد داوود  3- <a href="https://www.esri.com/en-us/home">https://www.esri.com/en-us/home</a>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

### Course description form

## Course Description Form

<b>1. Course Name:</b>					
Applied geomorphology					
<b>2. Course Code:</b>					
GAG 218					
<b>3. Semester / Year:</b>					
First semester/second academic year					
<b>4. Description Preparation Date:</b>					
25/9/2024					
<b>5. Available Attendance Forms:</b>					
<i>In-person and electronic education</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<i>Name: Prof. Dr Abdullah Sabbar Abod</i> <i>Email: abdallahsabbar@coart.uobaghdad.edu.iq</i>					
<b>8. Course Objectives</b>					
The academic program aims to introduce students to geomorphology and its most important applied fields, study curricula for applied geomorphology, as well as research methods for studying applied geomorphology as well as applications of the results of geomorphological studies.					
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1+2	4	Geographer	Definition of geomorphology: the most important applied fields of geomorphology	Interactive lectures + video presentation + theoretical lectures	Exams + activities + reports
3+4	4		Study curricula for		

			applied geomorphology. Dimensions of applied geomorphology.		
5+6	4		On-site study of surface features formations (first rocks, second soil). Erosion and its types		
7+8	4		Applications of the results of geomorphological studies. The role of geomorphology in road planning and construction.		
9+10	4				
11+12	4		The role of geomorphology in airport planning. The role of geomorphology in planning dam and reservoir projects. The role of geomorphology in verifying the existence of natural resources.		
13 14 15	6				

### 11. Course evaluation

*Distributing the grade out of 100 into (40%) according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, and reports (60% for the final exam)*

### 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

<b>1. Course Name:</b>					
<i>Geomorphology</i>					
<b>2. Course Code:</b>					
GGe 110					
<b>3. Semester / Year:</b>					
first year/second semester					
<b>4. Description Preparation Date:</b>					
25/3/2024					
<b>5. Available Attendance Forms:</b>					
<i>In person and electronic</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Hayam Noman Falih Email: <a href="mailto:hayam.n@coart.uobaghdad.edu.iq">hayam.n@coart.uobaghdad.edu.iq</a>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<p>The academic program aims to learn about geomorphology and the branches of science, as well as geomorphological factors and processes and their effects on rock formations, then the effect of water, wind and ice on rock formations, then explain the effects of volcanoes and earthquakes on the formation of geomorphological features and the effects of weathering and erosion in the formation of geomorphological forms.</p>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hour</b>	<b>Required</b>	<b>Unit or subject</b>	<b>Learning</b>	<b>Evaluation</b>

	s	Learning Outcomes	name	method	method
		Geographer	<i>Geomorphology and its branches</i> <i>Types of rocks</i> <i>Rock properties</i> <i>Rivers and winds</i> <i>Ice and volcanoes</i> <i>Earthquakes and continental plates</i> <i>Weathering and erosion</i> <i>Geomorphology and its branches</i> <i>Types of rocks</i> <i>Rock properties</i>	<i>Interactive lectures + video presentation + theoretical lectures</i>	

11.

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

1. Course Name:	
Thematic maps	
2. Course Code:	
3. Semester / Year:	
First semester/second academic year	
4. Description Preparation Date:	
2024-9-17	
5. Available Attendance Forms:	
In person and electronic	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 practical + 15 theoretical hours / 30 units	
7. Course administrator's name (mention all, if more than one name)	
Name: Wissam Ahmed Rashid Email: <a href="mailto:wesamahmed@coart.uobaghdad.edu.iq">wesamahmed@coart.uobaghdad.edu.iq</a>	
8. Course Objectives	
Course Objectives	Enabling the student to prepare and draw maps of the distributions of geographical phenomena
9. Teaching and Learning Strategies	
Strategy	
10. Course Structure	

the week	hours	Required learning outcomes	Name of the unit/course or subject	Teaching method	Evaluation method
1	3	Memorize and understand	Map classification	Lecture and discussion	Oral questions
2	3	Understand and apply	Natural maps (geological)	Practical applications	Cartographic representation
3-4	6	Understand and apply	Natural maps - Geomorphology	Practical applications	Cartographic representation
5-6	6	Understand and apply	Natural maps Topographical	Practical applications	Cartographic representation
7	3	Understand and apply	Natural maps climate	Practical applications	Cartographic representation
8	3	Understand and apply	Human maps	Practical applications	Cartographic representation
9-10-11	9	Understand and apply	Human maps residents	Practical applications	Cartographic representation
12-13	6	Understand and apply	Human maps the cities	Practical applications	Cartographic representation
14	3	Understand and apply	Human maps Economic	Practical applications	Cartographic representation
15	3	Understand and apply	Human maps political	Practical applications	Cartographic representation

#### 11. Course Evaluation

Distributing the grade out of 100 into (40%) according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, and reports (60% for the final exam)

#### 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1- Hashim Muhammad Yahya Al-Masrif, Principles of Cartography, Baghdad, Al-Adib Press, 1982. 2- Ahmed Najm al-Din Faliya, Practical Geography and Maps, 3rd edition, Baghdad, University of Baghdad,
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	<p>1976 .</p> <p>3- Ahmed Al-Badawi Muhammad Al-Shari'i , Geographical Maps - Design, Reading and Interpretation, Cairo, Dar Al-Fikr Al-Arabi, 1997.</p> <p>4- Fayez Muhammad Al-Issawi, Human Distribution Maps, Dar Al-Maarifa Al-Jami'ah, 2000.</p> <p>1 . Nasser bin Muhammad Salma, Maps of Human Distributions , Riyadh, Obeikan Office, 1995.</p> <p>2 . Muhammad Abd al-Rahman al-Sharnoubi , Maps of Human Distributions, Cairo, Anglo-Egyptian Library, 1970.</p> <p>3 . Falah Shaker Aswad, Thematic Maps, Mosul, Dar Al-Kutub, 1991.</p> <p>4 . Fathi Abdel Aziz Abu Radi, Practical Geography and Principles of Cartography, first edition, Beirut, Dar Al-Nahda Al-Arabi, 1998.</p> <p>5 . Bahjat Muhammad Muhammad , Introduction to Cartography , Libya, April 7th University Press, 1994.</p> <p>Other modern sources that contain the vocabulary of the subject</p>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

### Course description form

## Course Description Form

1. <i>Course Name:</i>					
<b>Geographic thought</b>					
2. <i>Course Code:</i>					
3. <i>Semester / Year:</i>					
first year/ second semester					
4. <i>Description Preparation Date:</i>					
25/9/2024					
5. Available Attendance Forms:					
<i>In person and electronic</i>					
6. Number of Credit Hours (Total) / Number of Units (Total)					
<i>30 practical + 15 theoretical hours / 30 units</i>					
7. Course administrator's name (mention all, if more than one name)					
<i>Name: Dr. Israa Talal Daoud</i>					
<i>Email: <a href="mailto:Israatalal@coart.uobaghdad.edu.iq">Israatalal@coart.uobaghdad.edu.iq</a></i>					
8. Course Objectives					
<b>Course Objectives</b>			The academic program aims to introduce students to the geography of thought and geographical thought in different eras and times, as well as modern geographical thought.		
9. Teaching and Learning Strategies					
<b>Strategy</b>					
10. Course Structure					
<b>Week</b>	<b>Hour s</b>	<b>Required Learning</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>

		Outcomes			
		Geographer	<i>The first beginnings of geographical thought.</i> <i>Geographical thought in ancient times</i> <i>Arab geographical thought before Islam.</i> <i>Arab-Islamic geographical thought</i> <i>The geographical discovery movement, the contribution of the Arabs to geographical discoveries</i> <i>Modern geographical discoveries</i> <i>German modern schools</i> <i>French English American</i> <i>Contemporary Arab Geographic School</i>	<i>Interactive lectures + video presentation + theoretical lectures</i>	
11.					
Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc					
12. Learning and Teaching Resources					
Required textbooks (curricular books, any)			Basic texts		

Main references (sources)	<i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

1. Course Name:	
Applied Project Using GIS	
2. Course Code:	
Uncoded	
3. Semester / Year:	
Third Year, First Semester	
4. Description Preparation Date:	
September 25, 2025	
5. Available Attendance Forms:	
In-person in Classrooms and GIS Lab	
6. Number of Credit Hours (Total) / Number of Units	
Number of Units (Total) 30 Hours	
7. Course administrator's name (mention all, if more than one name)	
Asst. Prof. Dr. Fouad Jiyad Matar Email: fouad@coart.uobaghdad.edu.iq	
8. Course Objectives	
Course Objectives	
9. Teaching and Learning Strategies	
Strategy	

## 10. Course Structure

the week	hours	Required learning outcomes	Name of the unit/course or subject	Teaching method	Evaluation method
1	2	Learn the basics of the program	General review of the program interface	Direct application of the program	Practical test.
2	2	Learn the basics of the program	General review of the toolbar and the standard bar	Direct application of the program	Practical test
3	2	Learn the basics of the program	Learn methods for correcting coordinates for paper maps	Direct application of the program	Practical test
4	2	Learn the basics of the program	Learn methods for correcting coordinates for paper maps	Direct application of the program	Practical test
5	2	Learn the basics of the program	Building a spatial database in Arc catalog 10.2	. Direct application of the program.	Practical test
6	2	. Learn the basics of the program	How to work with the Editor toolbar	Direct application of the program	Practical test
7	2	Learn the basics of the program	How to work with the Editor toolbar	Direct application of the program.	Practical test
8	2	Learn the basics of the program	How to work with the labeling bar	Direct application on the program	Practical test
9	2	Learn the basics of the program	How to work with the symbology bar	Direct application on the program	Practical test
10	2	Learn the basics of the program	How to work with the symbology	Direct application on the	Practical test

11. Course Evaluation	
Required textbooks (methodology, if available): Arc GIS 10, ESRI, USA. "Applied Fundamentals in Geographic Information Systems" book. Dr.	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

**Course description form**



## Course Description Form

1. <i>Course Name:</i>					
<b>Environmental problems</b>					
2. <i>Course Code:</i>					
GEp 450					
3. <i>Semester / Year:</i>					
Fourth year/first semester					
4. <i>Description Preparation Date:</i>					
25/9/2024					
5. Available Attendance Forms:					
<i>In person and electronic</i>					
6. Number of Credit Hours (Total) / Number of Units (Total)					
<i>30 practical + 15 theoretical hours / 30 units</i>					
7. Course administrator's name (mention all, if more than one name)					
<i>Name: Dr. Israa Talal Daoud</i>					
<i>Email: <a href="mailto:Israatalal@coart.uobaghdad.edu.iq">Israatalal@coart.uobaghdad.edu.iq</a></i>					
8. Course Objectives					
<b>Course Objectives</b>			<p>The academic program aims to introduce students to the nature of the environment, the relationship between humans and their environment, the impact of the environment on humans, the impact of humans on the natural environment, as well as identifying the problem of desertification, definition of desertification, manifestations of desertification, causes of desertification, solutions to the problem of desertification, the concept of pollution, degrees. Pollution, types of pollution (air, noise, water pollution), the phenomenon of global warming, the causes of global warming, ways to reduce the effects of the damage caused by global warming.</p>		
9. Teaching and Learning Strategies					
<b>Strategy</b>					
10. Course Structure					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>

		<i>Geographer</i>	<p><i>What is the environment? The natural environment and the built environment. The relationship between man and his environment The impact of the environment on humans, the impact of humans on the natural environment, Environmental concepts Ecosystem Ecological balance and imbalance The meaning of the problem from an environmental perspective Biosphere reserve Attrition and maintenance The food problem, the concept of the food problem and its elimination The problem of desertification, definition of desertification, manifestations of desertification, causes of desertification, solutions to the problem of desertification</i></p> <p><i>The concept of pollution, degrees of pollution, types of pollution (air, noise, and water pollution), the phenomenon of global warming, the causes of global warming, ways to</i></p>	<p><i>Interactive lectures + video presentation + theoretical lectures</i></p>	
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			<i>reduce the effects of global warming.</i>	
<b>11. Course Evaluation</b>				
<i>Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc</i>				
<b>12. Learning and Teaching Resources</b>				
Required textbooks (curricular books, any)	<i>Books on environmental problems</i> <i>Muhammad Hassan Awad, Hassan Ahmed Shehata, Environment and Pollution Problems, Al-Azhar University</i> <i>Hamdi Abu Al-Naga, Dangers of Environmental Pollution, Academic Library</i> <i>Muhammad Hassan Awad, Hassan Ahmed Shehata, environmental studies and issues</i> <a href="https://download-scientific-pdf-ebooks.com/1107-1-library-books">https://download-scientific-pdf-ebooks.com/1107-1-library-books</a>			
Main references (sources)				
Recommended books and references (scientific journals, reports...)				
Electronic References, Websites				

## Course Description Form

<b>1. Course Name:</b>					
Geographic research method					
<b>2. Course Code:</b>					
-					
<b>3. Semester / Year:</b>					
First semester/second year					
<b>4. Description Preparation Date:</b>					
25/3/2024					
<b>5. Available Attendance Forms:</b>					
<i>In person and electronic</i>					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
<i>30 practical + 15 theoretical hours / 30 units</i>					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
<i>Name: Hayam Noman Falih</i> <i>Email: <a href="mailto:hayam.n@coart.uobaghdad.edu.iq">hayam.n@coart.uobaghdad.edu.iq</a></i>					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>			<ul style="list-style-type: none"> <li>The electronic program aims to introduce what scientific research is and what are the methods and means by which scientific research and reports are written, with attention to geographical research, the methods and means of using sources and how to write them, geographical samples and their types and importance and how to choose them according to the sample researched, in addition to the most important contemporary geographical and geographic research methods and research methods. Modern.</li> </ul>		
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>					
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hour</b>	<b>Required</b>	<b>Unit or subject name</b>	<b>Learning</b>	<b>Evaluation</b>

	s	Learning Outcomes		method	method
		Geographer	<p><i>The importance of scientific research in the development of society.</i></p> <p><i>How to prepare scientific research (how to address the geographical phenomenon in the study, choosing the research topic,</i></p> <p><i>Choosing the research title, defining the study area, defining the research problem, research hypotheses, objectives of the study, and importance of the research).</i></p> <p><i>Research methods (systematic, regional, descriptive, historical, evolutionary, crop method).</i></p> <p><i>Samples and their types (systematic sample, random sample, stratified sample, composite sample)</i></p> <p><i>Sources of data and information (books devoted to the field of research, studies and research related to the</i></p>	<p><i>Interactive lectures</i></p> <p><i>video presentation</i></p> <p><i>theoretical lectures</i></p>	<p>+</p> <p>+</p>

			<p>research topic, specialized periodicals and bulletins,). Government departments and institutions related to the research topic, geographic information systems, use of modern communication technologies, use of the Internet, maps of the study area, field study.</p> <p>Fundamentals of writing sources (how to write sources and footnotes).</p> <p>The virtual library and its role in supporting scientific research from sources</p>		
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## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	Basic texts Private videos
Main references (sources)	Other modern sources that contain the vocabulary of the subject
Recommended books and references (scientific journals, reports...)	1. Sabri Fares Al-Hiti, Ibrahim Al-Mashhadani, Saadi Muhammad Saleh Al-Saadi, <i>Geographical Thought and Research Methods</i> , Mosul University Press, 1985.
Electronic References, Websites	2. Abbas Ali Al-Tamimi, Sahab Khalifa Al-Samarrai, <i>Geographical Research Methodology and Application</i> , Dar Al-Hekma, first edition, London, 2012.

	<p><i>3. Mohsen Abdel-Sahib Al-Muzaffar, Spatial Research Techniques and Analysis, Presentation of Methods - Preparing the Geographic Thesis and the Stages of Its Completion, Dar Safaa for Publishing and Distribution, Amman, 2007.</i></p>
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## Course Description Form

1. Course Name:					
Industrial sites					
2. Course Code:					
-					
3. Semester / Year:					
Fourth year/ <b>second</b> semester					
4. Description Preparation Date:					
25/9/2024					
5. Available Attendance Forms:					
<i>In person and electronic</i>					
6. Number of Credit Hours (Total) / Number of Units (Total)					
<i>30 practical + 15 theoretical hours / 30 units</i>					
7. Course administrator's name (mention all, if more than one name)					
<i>Name: Dr. Intisar Hassoun Reda</i>					
<i>Email: <a href="mailto:intsar@coart.uobaghdad.edu.iq">intsar@coart.uobaghdad.edu.iq</a></i>					
8. Course Objectives					
<b>Course Objectives</b>			The academic program aims to develop students' analytical capabilities and expand their understanding of the spatial variation in the distribution of industries, with a focus on Iraq		
9. Teaching and Learning Strategies					
<b>Strategy</b>					
10. Course Structure					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
		Geographer	<i>The theory of the least cost location of production</i> <i>Alfred Weber's theory</i> <i>Oxt-Loch theory</i> <i>Edgar Hoover's theory</i> <i>Profits theory</i>	<i>Interactive lectures + video presentation + theoretical lectures</i>	



			<i>Market theory</i> <i>Industrial links</i> <i>Vertical and horizontal links</i> <i>Sectoral and network links</i> <i>Multiple links and ways to measure them</i>  <i>Economic savings</i> <i>Internal and external savings</i> <i>Industry measurement standards</i> <i>Locational patterns of industry distribution</i>		
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## 11. Course Evaluation

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

## 12. Learning and Teaching Resources

Required textbooks (curricular books, any)	<i>Basic texts</i> <i>Private videos</i> <i>Other modern sources that contain the vocabulary of the subject</i>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

## Course Description Form

1. Course Name:	
Geographic information systems/theoretical	
2. Course Code:	
3. Semester / Year:	
Second semester/second academic year	
4. Description Preparation Date:	
17-9-2024	
5. Available Attendance Forms:	
In person and electronic	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>theoretical hours 4 units</i>	
7. Course administrator's name (mention all, if more than one name)	
Name: Wissam Ahmed Rashid Email: <a href="mailto:wesamahmed@coart.uobaghdad.edu.iq">wesamahmed@coart.uobaghdad.edu.iq</a>	
8. Course Objectives	
Course Objectives	Enabling the student to prepare and draw maps of geographical phenomena using geographic information systems
9. Teaching and Learning Strategies	
Strategy	
10. Course Structure	

the week	hours	Required learning outcomes	Name of the unit/course or subject	Teaching method	Evaluation method
1	2	Memorize and understand	The concept of geographic information systems, a general introduction.	Lecture and discussion	Oral questions
2	2	Memorize and understand	Geographic information systems tasks	Lecture and discussion	Oral questions
3	2	Memorize and understand	Advantages and requirements of geographic information systems.	Lecture and discussion	Oral questions
4-5	4	Memorize and understand	Components and type of data in geographic information systems	Lecture and discussion	Oral questions
6-7	4	to understand	Global Positioning System - Definition of Global Positioning System, its concept and uses.	Lecture and discussion	Oral questions
8	2	to understand	Components of the Global Positioning System - How is the location accurately determined in the Global Positioning System and some facts about it and sources of error in it.	Lecture and discussion	Oral questions
9	2	Understand and apply	The relationship of geographic information systems to other sciences.	Lecture and discussion	Oral questions
10-11	4	Understand and apply	The methodological role of geographic information systems	Lecture and discussion	Oral questions
12-13	4	Understand and apply	Applied projects in geographic information systems	Practical applications	
14-15	4	Understand and apply	Applied projects in geographic information systems	Practical applications	Evaluation method

## 11. Course Evaluation

Distributing the grade out of 100 into (40%) according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, and reports (60% for the final exam)

## 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<p>1- Geographic Information Systems Foundations and Applications, Dr. Khalaf Hussein Ali, 2nd edition, Dar Al-Safa, Amman, 2014</p> <p>2- Geographic Information Systems, Dr. Najib Abdul Rahman Al-Zaidi , 1st edition, Al-Yazouri Library, Amman, 2007.</p> <p>3- Basics of Geographic Information Systems, Dr. Samih Ahmed Odeh, 1st edition, Dar Al-Maysara, Amman, 2005.</p> <p>4- Effective cartographic representation of the grain variable in geographic information systems, Raed Bashir Al-Fares, 1st edition, Dar Al-Safa, 2012.</p> <p>There are many other sources</p>
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

### Course description form

## Course Description Form

<b>1. Course Name:</b>	
Geography of transport and international trade	
<b>2. Course Code:</b>	
-	
<b>3. Semester / Year:</b>	
The second semester of the academic year (2024 - 2025), second year / 2024	
<b>4. Description Preparation Date:</b>	
12/9/2024	
<b>5. Available Attendance Forms:</b>	
<i>In-person and electronic</i>	
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	
<i>45 hours / 3 units</i>	
<b>7. Course administrator's name (mention all, if more than one name)</b>	
<i>Name: Dr. Shorooq Naeem Jasim Al-Jubouri</i> <i>Email: <a href="mailto:Shorooqjasim@coart.uobaghdad.edu.iq">Shorooqjasim@coart.uobaghdad.edu.iq</a></i>	
<b>8. Course Objectives</b>	
<b>Objectives of the study subject</b> - The student gets to know the concept of transportation geography - Identify the factors affecting the geography of transportation - Knowing the geographical distribution of its patterns - Knowing the problems and treatments that this science suffers from	<ul style="list-style-type: none"> <li>• For the student to become familiar with the concept of transportation geography, its methods, and how it developed</li> <li>• Knowing the factors affecting the geography of transportation</li> <li>• Identify the types of transportation geography</li> <li>• Knowing the positive and negative effects of the types of transportation geography</li> </ul>
<b>9. Teaching and Learning Strategies</b>	
<b>Strategy</b>	<ul style="list-style-type: none"> <li>- <i>Interactive lectures between the professor and students</i></li> <li>- <i>How to solve problems</i></li> <li>- <i>Deductive (inductive) method</i></li> <li>- <i>Use of maps</i></li> <li>- <i>Showing educational films on transportation geography</i></li> </ul>

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
the first		Transportation geography: its definition, methods, and relationship to other sciences	Learn about the definition of transportation geography according to the schools that are interested in this science	Lecture and discussion	exam
the second		Transportation geography: its definition, methods, and relationship to other sciences	Introducing its methods and the relationship of this science to other sciences	Lecture, discussion, and use of maps	
the third		Natural factors affecting the geography of transportation	Identify natural factors		
the fourth		Human factors affecting the geography of transportation	Identify human factors		
Fifth		Ancient geography of transportation	Porters - animals - carts		
six		Modern means of geography of transportation	Know the most important characteristics of each type		
The seventh		Road transport	Cars - railways - pipes		
Eighth		Water transport	River transport - sea transport		
The ninth		Air transport	Airport - plane...		
and tenth		Development of transportation geography	Introduction to the problems of transportation geography		
Eleventh,		Problems and solutions	Identify appropriate solutions		
twelfth		Development of transportation geography			
and		Problems and solutions			
thirteenth		Development of transportation geography			
fourteenth		Problems and solutions			
Fifteenth		Problems and solutions			

## 11. Course Evaluation

*Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily*

*preparation, daily, oral, monthly, written exams, reports, etc.*

## 12. Learning and Teaching Resources

Required textbooks (methodology, if any)

Transport geography books for:

1. Abdel Aziz Muhammad Habib and Youssef Yahya Tamas
2. Muhammad Azhar Al-Sammak
3. Salem Al-Shawara
4. Ahmed Saeed Abdo

Main references (sources)

1. Ahmed Hassoun Al-Samarrai
2. Zain al-Abidin Ali Safar
- 3- Glorious Kings of Samurai

Recommended books and references  
(scientific journals, reports...)

Electronic References, Websites

## Course Description Form

1. <i>Course Name:</i> Applied climatology	
2. <i>Course Code:</i>	
3. <i>Semester / Year:</i> "The Second Semester/Second Stage/2025	
4. <i>Description Preparation Date:</i> 22/9/2025	
5. Available Attendance Forms: In-person and Online	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>45 hours/3 units</i>	
7. Course administrator's name (mention all, if more than one name)	
<i>Name:</i> taghreed ahmed umran <i>Email:</i> <a href="mailto:taghreedalqadi@coart.uobaghdad.edu.iq">taghreedalqadi@coart.uobaghdad.edu.iq</a>	
8. Course Objectives	
<b>Course Objectives</b>	
9. Teaching and Learning Strategies	
Strategy	



## 10. Course Structure

the week	hours	Required learning outcomes	Name of the unit/course or subject	Teaching method	Evaluation method
First	2	Understanding Applied Climatology	Study of the concept of Applied Climatology	Lecture and Discussion	Exam
Second	2	Historical Evolution of Applied Climatology	Study of the historical evolution of Applied Climatology	Lecture and Discussion	Exam
Third, Fourth, and Fifth	7	Agricultural Climate: Concept and Applications	Study of agricultural climate and its applications	Lecture, Discussion, Field Work	Exam
Sixth and Seventh	7	Industrial Climate and Applications	Study of industrial climate and its applications, and the impact of climate elements on industry	Lecture, Discussion, Use of Maps	Exam
Eighth, Ninth, and Tenth	7	Climate Impact on Trade	Study of the climate's impact on trade and the impact of climate elements	Lecture, Discussion, Use of Maps	Exam
Eleventh and Twelfth	6	Climate Impact on Wars	Study of the climate's impact on wars and the impact of climate elements	Lecture, Discussion, Use of Educational Films	Exam
Thirteenth, Fourteenth, and Fifteenth	9	Climate Impact on Human Health and its Role in the Spread of Epidemics and Diseases	Study of the importance and role of climate in the spread of epidemics and diseases, with a historical overview	Lecture, Discussion, Field Work	Exam

<b>11. Course Evaluation</b>	
<i>Distributing the score out according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc</i>	
<b>12. Learning and Teaching Resources</b>	
Required textbooks (curricular books, if any)	"
Main references (sources)	"Principles of Weather and Climate" by Dr. Qusay Abdul Majeed Al-Samaraie. - "Climate Science" by Dr. Nu'man Shahada. - "Applied Climatology" by Dr. Qusay Al-Samaraie. - "Geography of Arid Regions" by Dr. Hassan Ramadan Salama. - "Applied Climatology" by Dr. Ali Ahmed Ghanem.
Recommended books and references (scientific journals, reports...)	- "Climatic Regions" by Dr. Qusay Al-Samaraie.
Electronic References, Websites	ipcc

### Course description form

## Course Description Form

2. Course Name: English Headway Plus –Upper Intermediate

4. Course Code:

6. Semester / Year: First Semester 2024-2025

8. Description Preparation Date: 30-10-2025

9. 10. Available Attendance Forms: Full Attendance

11. 12. Number of Credit Hours (Total) / Number of Units (Total)

13. 14. Course administrator's name: Inst. Fawziya Mousa Ghanim

15. 16. Course Objectives

1. Introducing students to the necessity of learning a second language and its importance in developing their academic and cognitive skills.
2. Developing students' reading, writing, speaking and listening skills to acquire the language.
3. Encourage students to participate, communicate and speak using the second language.
4. Introducing students to the importance of distinguishing between tenses in English language and the necessity of distinguishing between parts of speech.

17. Teaching and Learning Strategies

1. Activating the strategies of sharing activities in the form of discussion groups and enhancing the role of conversation in language learning.
2. Get the advantages of the scientific platforms and websites.
3. Using Visual and Virtual means media to present scientific material.
4. Participating in outclass activities and volunteer activities.
5. Organizing group classroom activities to develop the skills of learning, teaching and highlight some important topics in life and the academic community.

## 18. Course Structure

the week	hours	Required learning outcomes	Name of the unit/course or subject	Teaching method	Evaluation method
1 <sup>st</sup> week	2	tenses	Unit 1	Reading spelling	Discussion
2 <sup>nd</sup> week	2	Present Perfect	Unit 2	Speaking Examples	Activities
3 <sup>rd</sup> week	2	Present continuous	Unit 3	Writing exercises	Discussion Conversation
4 <sup>th</sup> week	2	Past simple Continuous	Unit 4	Questions Answers	Exam
5 <sup>th</sup> week	2	Making questions	Unit 4	Listening Reading	Students presentations
6 <sup>th</sup> week	2	Forms of Future	Unit 5	Writing emails	Introducing their tasks
7 <sup>th</sup> week	2	Expressions of quantity & quality	Unit 6	Group reading	Writing summaries
8 <sup>th</sup> week	2	Auxiliary verbs	Unit 7	Vocabularies Reading	Writing paragraph
9 <sup>th</sup> week	2	Listening Comprehension	Unit 7	Speaking	Individual reading
10 <sup>th</sup> week	2	Relatives clauses	Unit 8	Places description	Writing

## 19. Course Evaluation

## 20. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<i>Headway Plus-Upper Intermediate</i>
Main references (sources)	<a href="#">Activities for ESL Students</a>
Recommended books and references (scientific journals, reports...)	<a href="#">BBC Learning English</a> <a href="https://www.learnenglish.de">https://www.learnenglish.de</a>
Electronic References, Websites	<a href="https://learnenglish.britishcouncil.org/grammar">https://learnenglish.britishcouncil.org/grammar</a>

## Course description form



## Course Description Form

1. Course Name:	
Geography of Arab Homeland	
2. Course Code:	
-	
3. Semester / Year:	
The First semester of the academic year (2024 - 2025), Third year / 2024	
4. Description Preparation Date:	
12/9/2024	
5. Available Attendance Forms:	
<i>In-person and electronic</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>45 hours / 3 units</i>	
7. Course administrator's name (mention all, if more than one name)	
<i>Name: Dr. Shorooq Naeem Jasim Al-Jubouri</i> <i>Email: <a href="mailto:Shorooqjasim@coart.uobaghdad.edu.iq">Shorooqjasim@coart.uobaghdad.edu.iq</a></i>	
8. Course Objectives	
<i>1- That the student becomes familiar with the geography of the Arab world</i> <i>2- Knowing the types of natural, human and economic resources</i> <i>3- Knowing the geographical distribution of the mentioned resources</i> <i>4-Learn to draw and read distribution maps of the natural, human and economic aspects in the Arab world</i> <i>2- Enhancing students' abilities to spatially analyze the resources of the Arab world</i>	
9. Teaching and Learning Strategies	
<b>Strategy</b>	<ul style="list-style-type: none"> <li>- <i>Interactive lectures between the professor and students</i></li> <li>- <i>How to solve problems</i></li> <li>- <i>Deductive (inductive) method</i></li> <li>- <i>Use of maps</i></li> <li>- <i>Showing educational films on geography Arab Homeland</i></li> </ul>

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
the first		Natural aspect: geographical	Identify the geographical and astronomical location of the Arab world	Lecture and discussion	exam
the second		location	Introducing the geological eras to which the Arab world was exposed	Lecture, discussion, and use of maps	
the third		Structure and geological	Introducing geomorphological phenomena in the Arab world		
the fourth		structure	Introducing the climate of the Arab world and the factors affecting it		
Fifth		Landforms	Introducing the soil of the Arab world		
six		the climate	Introducing the soil of the Arab world		
The seventh		the soil	Introduction to natural plants		
The eighth		Natural plant	Introducing the population of the Arab world and their historical development		
		The human side	Introducing the population structure in our Arab world		
The ninth		Population composition	Definition: the dependency ratio available in the Arab world and the distribution of the population as well as their movement		
and tenth		Dependency ratio	Introducing agriculture, its factors and industry to the Arab world		
Eleventh,		Population distribution	Defining the aspect of tourism and trade that the population relies on and the factors affecting it		
twelfth		Population			
and		movement			
thirteenth		Agriculture -			
fourteenth	Industry -				
Fifteenth	Tourism -				
	Trade				
11. Course Evaluation					
Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily					

*preparation, daily, oral, monthly, written exams, reports, etc.*

## 12. Learning and Teaching Resources

Main references (sources)

Geography books for the Arab world by:

1. Abdel Fattah Lotfi Abdullah
  2. Muhammad Azhar Al-Sammak
  3. Bassem Abdul Aziz Omar Al Othman and Hussein Aliwi Nasser Al Ziyadi
  4. Philip Rafla and Ahmed Sami Mustafa
  5. Bahri Ahmed Al-Katri
  6. Saadia Akoul Mankhi and Sedati Welda
  7. Muhammad Sobhi Abdel Hakim, Youssef Khalil Youssef, and two others
- Falah Jamal Maarouf, Bashir Ibrahim Al-Tayef, and Mohsen Abdel Ali

Main references (sources)

1. Ahmed Hassoun Al-Samarrai
2. Zain al-Abidin Ali Safar
- 3- Glorious Kings of Samurai

Recommended books and references  
(scientific journals, reports...)

Electronic References, Websites